DRAFT

SHOSHONE - EUREKA

RESOURCE MANAGEMENT PLAN AMENDMENT

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Battle Mountain District Office
Battle Mountain, Nevada

IN REPLY REFER TO:

1279
(NV-951)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
NEVADA STATE OFFICE

850 Harvard Way
P.O. Box 12000
Reno, Nevada 89520

FEB 25 1987

Memorandum

To: Director, Division of Information and Library Services

From: State Director, Nevada

Subject: Nevada BLM Publications

The following Nevada Bureau of Land Management Publication (3 copies) is provided for the Natural Resources Library:

SHOSHONE- EUREKA RESOURCE MANAGEMENT PLAN AMENDMENT - Draft- 1987

Fred Wolf
Associate

1 Attachment
Publication as listed above (3 copies)

IN REPLY REFER TO:

1610
(NV-060)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
NEVADA STATE OFFICE

850 Harvard Way
P.O. Box 12000
Reno, Nevada 89520

Dear Reader:

Enclosed for your review and comment is the draft Shoshone-Eureka Resource Management Plan Amendment. This amendment analyzes a proposal to manage the livestock use and impacts on wildlife habitat from livestock grazing on a high percentage of the Shoshone-Eureka Resource Area currently managed as Maintain and Custodial Category Allotments. Two alternatives including the Proposed Amendment were analyzed. They are both multi-use oriented, but each emphasizes a different balance between resources.

Your review and comment are needed at this time to ensure that your concerns have been considered in the planning process. Please direct written comments to Terry Plummer, District Manager, Attn: Shoshone-Eureka Amendment, Bureau of Land Management, P.O. Box 1420, Battle Mountain, Nevada 89820.

Oral Comments will be accepted at the following public meetings:

Date and Time	City	Location
March 10, 1987 7:00 p.m.	Battle Mountain, Nevada	Bureau of Land Management Shoshone-Eureka Conference Room
March 11, 1987 7:00 p.m.	Eureka, Nevada	Eureka County Court House
March 12, 1987 7:00 p.m.	Reno, Nevada	Holiday Inn Downtown California Room

A time limit may be placed on oral comments, depending on the number of people who wish to make a statement. Oral comments should be accompanied by a written synopsis of the presentation. Written and oral comments will be fully considered and evaluated in preparation of the proposed Resource Management Plan Amendment. Following the public review and comment period, a final Amendment and associated Final Environmental Impact Statement will be prepared considering the comments received through the review process.

If changes in the proposed Resource Management Plan Amendment are minor, the final document will only include those changes and will not be a full reprint of the Draft Amendment. For this reason, reviewers are requested to retain their copy of the Draft Amendment for use in conjunction with the proposed Amendment.

Sincerely,

Edward F. Spang
State Director, Nevada

DRAFT RESOURCE MANAGEMENT PLAN AMENDMENT

for the

SHOSHONE-EUREKA RESOURCE AREA

NEVADA

Prepared by the

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BATTLE MOUNTAIN DISTRICT

Edward F. Spang
Nevada State Director

The Draft Resource Management Plan Amendment proposes to amend the Shoshone-Eureka Resource Management Plan (RMP). Two alternatives have been prepared for analysis purposes. The alternatives include a Proposed RMP Amendment, and a No Action Alternative. The Proposed RMP Amendment displays one way to balance livestock grazing use and wildlife habitat needs. The No Action Alternative is the implementation of the Shoshone-Eureka Record of Decision issued in March 1986.

This document is the Draft Environmental Impact Statement for The Proposed Amendment.

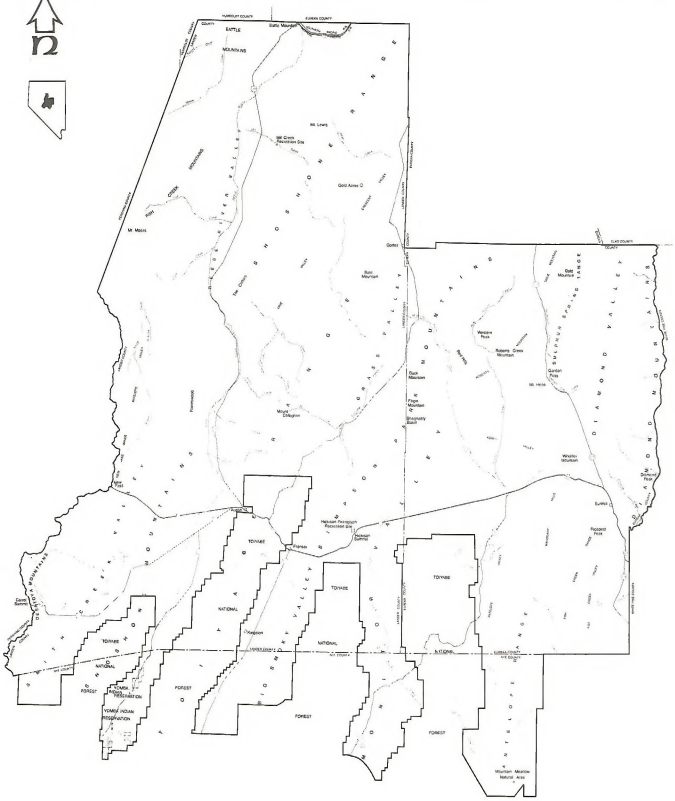
For further information contact: Terry Plummer, District Manager, Bureau of Land Management, P.O. Box 1420, Battle Mountain, Nevada 89820 or telephone (702) 635-5181.

Date by which comments must be received: APR 16 1987

TABLE OF CONTENTS

LIST OF TABLES

LIST OF MAPS



U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
SHOSHONE – EUREKA
RESOURCE MANAGEMENT PLAN AMENDMENT

LOCATION MAP

1987

SUMMARY

INTRODUCTION

The Battle Mountain District of the Bureau of Land Management proposes to implement a RMP Amendment that will manage the livestock use and impacts on wildlife habitat from livestock grazing on a high percentage of the Shoshone-Eureka Resource Area currently managed as Maintain and Custodial Category Allotments. Two alternatives have been prepared for analysis purposes. A Proposed Amendment and a No Action Alternative examines different solutions to the resource management issue. Each of the alternatives is multiple-use oriented and differs significantly in the balance struck among resource uses.

The Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), which interpret the National Environmental Policy Act, (Pub. L. 91-190,42 U.S.C., 4321-4347, as amended), require that a No Action Alternative be included as part of each EIS. The No Action Alternative provides a useful benchmark by which to measure and assess the environmental consequences of the other alternatives.

Only the livestock management issue was identified for analysis in this alternative.

In order to facilitate project level planning, the resource area has been divided into four resource conflict areas. Each resource conflict area has a unique set of resources that warrants specific management considerations.

The Proposed Amendment

Through implementation of The Proposed Amendment, the Bureau of Land Management would seek to obtain the following objectives:

Manage livestock use at 239,717 animal unit months (5-year average use) in the short term and determine if such use can be maintained. In the long term, manage livestock use at 262,500 animal unit months (AUMs).

To establish a grazing management program designed to provide key forage plants with adequate rest from grazing during critical growth periods.

To achieve, through management of the livestock and wild horses, utilization levels consistent with those recommended by the Nevada Rangeland Monitoring Handbook to allow more plants to complete growth cycles and to increase storage of reserves for future growth.

In the long term, improve ecological condition on 616,394 acres and trend on 1,081,652 acres.

In the long term, improve and maintain 126,967 acres of big game habitat in good condition and 6,104 acres in excellent condition.

In the long term, stop downward trends on 65,702 acres of big game habitat and manage for upward trends on 129,941 acres.

In the short term, improve and maintain in good or better condition 64 miles of aquatic habitat and 768 acres of riparian habitat associated with the streams and an additional 1,067 acres of other meadows, springs, and aspen groves.

In the long term, improve and maintain in good or better condition a total of 84.8 miles of aquatic habitat and 1,018 acres of riparian habitat associated with the streams and an additional 1,414 acres of other meadows, springs, and aspen groves.

No Action Alternative

Under the No Action Alternative, the Shoshone-Eureka RMP would be implemented as directed in the Record of Decision issued in March 1986.

Table S-1 shows the environmental consequences of each alternative in comparative form.

Table S-1 Comparative Review of the Environmental Consequences of the Alternatives by Affected Environment Component

ENVIRONMENTAL COMPONENT	MEASURMENT PARAMETER	PROPOSED AMENDMENT	NO ACTION ALTERNATIVE[7]	PERCENT CHANGE BY IMPLEMENTING PROPOSED AMENDMENT AS COMPARED TO THE NO ACTION ALTERNATIVE
WILDLIFE RIPARIAN & AQUATIC CONDITION	Riparian Habitat Condition (acres) (% change) Projected short term.			
	Poor	1,483 (+3) [2]	1,809 (+10)	-7 (NS) [1]
	Fair	585 (-43)	824 (-38)	-5 (NS)
	Good-Improve[3]	1,835 (+40)	1,270 (+28)	+12 (SB) more good conditions
	Good-Maintain [4] [5]	657 (0)	657 (0)	0
	projected long term[6]			
	Poor	1,333 (0)	2,053 (+16)	-16 (SB) Less poor conditions
	Fair	138 (-53)	330 (-49)	-4 (NS)
	Good-Improve	2,432 (+53)	1,520 (+33)	+20 (SB) More good conditions
	Good-Maintain	657 (0)	657 (0)	0
	Aquatic Habitat Condition (miles) (% change) Projected short-term			
	Poor	51.7 (+3)	51.7 (+3)	0
	Fair	20.4 (-43)	20.4 (-43)	0
	Good-Improve	64 (+40)	64 (+40)	0
	Good-Maintain	22.9 (0)	22.9 (0)	0
	Projected long term[6]			
	Poor	46.5 (0)	63.9 (+11)	-11 (SB) Less poor conditions
	Fair	4.8 (-53)	8.2 (-51)	-2 (NS)
	Good-Improve	84.8 (+53)	64 (+40)	+13 (SB) More good conditions
	Good-Maintain	22.9 (0)	22.9 (0)	0
TERRESTRIAL BIG GAME HABITAT CONDITION AND TREND	Projected Long Term Condition (acres) (% change)			
	Poor	26,702 (-2)	28,606 (-1)	-1 (NS)
	Fair	439,484 (-14)	469,241 (-11)	-3 (NS)
	Good	361,144 (+15)	329,483 (+11)	+4 (NS)
	Excellent	39,410 (+1)	39,410 (+1)	0
	Projected Long Term Trend (acres) (% Change)			
	Down	0 (-8)	0 (-8)	0
	Static	674,998 (-7)	709,881 (-3)	-4 (NS)
	Up	191,742 (+15)	156,859 (+11)	+4 (NS)
LIVESTOCK GRAZING	Availability of forage (animal Unit months)			
	Projected short term (% change)	239,717 (0)	239,717 (0)	0
	Projected long term[6] (% change)	262,500 (+10)	259,229 (+8)	+2 (NS)
VEGETATION ECOLOGICAL CONDITION AND TREND	Long-term change in ecological condition (acres) (% change)	616,394 (+14)	428,640 (+10)	+4 (NS)
	Long-term change in vegetation trend (acres) (% change)	1,081,652 (+23)	836,244 (+19)	+4 (NS)

Source: Shoshone-Eureka planning team estimates

1/ Appendix B provides the "Basis for Assessment of Significant Environmental Impacts".
NS = Not a significant impact
SB = Significant beneficial impact
SA = Significant adverse impact

2/ Percent change from existing conditions.

3/ Improve to good conditions from poor and fair condition classes

4/ Maintain in current good condition

5/ Threshold is good or better condition. Some areas included in good condition class may actually be in excellent condition.

6/ Cumulative Short Term plus Long Term

7/ The No Action Alternative is the implementation of the Shoshone-Eureka Record of Decision issued in March 1986.

CHAPTER 1

INTRODUCTION, PLANNING ISSUE, AND PLANNING CRITERIA

INTRODUCTION

LOCATION OF THE PLANNING AREA

The planning area contains 4.4 million acres of public land administered by the Bureau of Land Management within the Shoshone-Eureka Resource Area. The resource area, which is located in north-central Nevada, is an administrative subunit of the Battle Mountain District. The area includes three principal towns: Austin, Battle Mountain, and Eureka. It encompasses most of Lander and Eureka counties and a portion of Nye County.

PURPOSE OF AND NEED FOR ACTION

The Draft RMP Amendment proposes to amend the Shoshone-Eureka RMP. As a result of a reexamination of the criteria used to determine the selective management categories, one criterion was dropped. This draft RMP proposes to implement the grazing program in light of the reexamination of the selective management categories. This recategorization has added 14 more allotments to the "I" (Improve) Category for a total of 28. An assessment of these categorization changes indicates there are significant differences in impacts between the allotment categorization and the associated management actions in the current RMP and the recategorization of allotments and the associated management actions. The changes in management actions associated with the recategorization of allotments are significant enough to require an amendment to the RMP including assessment through an environmental impact statement.

THE PLANNING PROCESS

The Shoshone-Eureka RMP Amendment is being prepared in accordance with the Bureau of Land Management's planning regulations (43 CFR 1610.5-5). The process consists of the following nine steps: 1) identification of issues; 2) development of planning criteria; 3) collection of inventory data and information; 4) analysis of the management situa- tion; 5) formulation of alternatives; 6) estimation of effects of alternatives; 7) selection of preferred alternative (draft plan/EIS); 8) selection of the resource management (final plan/EIS), and 9) monitoring and evaluation.

To the best of the district's knowledge, the proposed plan is not inconsistent with the plans of other federal agencies, local government, or state government. Indian tribes within the Shoshone-Eureka Resource Area do not recognize the Bureau's authority to implement this plan.

The Proposed Amendment changes some of the livestock and wildlife objectives and therefore differs from the existing RMP.

PLANNING ISSUE

In June and July 1986, the Shoshone-Eureka Area Manager sent letters to individuals and organizations on the RMP mailing list, identifying the proposed criteria to be used in recategorizing the 49 grazing allotments and soliciting comments. On August 5, 1986, the Notice of Intent to Amend was published in the Federal Register and a news release was sent to the major newspapers in the area. The issue for consideration in the Draft RMP Amendment is the management of livestock use and impacts on wildlife habitat from livestock grazing on a high percentage of the Shoshone-Eureka Resource Area currently managed as Maintain and Custodial Category Allotments.

PLANNING CRITERIA

The criteria used for the recategorization of allotments are shown in Appendix A, along with a list of allotments by selective management category. "I" category allotments are numbered according to their priority.

A set of guidelines or criteria was developed to direct the resource management planning process. Draft allotment categorization criteria were made available for public review in June of 1986.

Criteria to Guide the Development of the Alternatives

Only two complete alternatives including a No Action Alternative will be formulated.

The alternatives will include (1) a Proposed Amendment that displays one way to balance livestock grazing use and wildlife habitat needs, and (2) a No Action Alternative that represents a continuation of the current management situation as described in the Shoshone-Eureka Record of Decision issued in March 1986.

Each alternative will include specific management objectives and a set of management actions that would be implemented to achieve the objectives.

Each alternative will specify the resource management activity plans (allotment management plans) that would be developed.

The use of the area of critical environmental concern designation will be considered as a potential management tool during the development of the alternatives.

Criteria Upon Which the Selection of the Preferred Alternative and Planning Decisions will be Based

Public comments from interested and affected publics at all levels--local, state, regional, and national --will be considered.

Public land areas will host multiple uses, except where a single use is in the public interest.

The renewable resources of the public lands will be managed on a sustained-yield basis.

The present and potential uses of the public land will be considered.

The relative scarcity of resource values and the availability of alternative sources of supply will be considered.

The relative value of long-term and short-term public benefits will be considered.

Special attention will be given to socio-economic impacts upon local communities.

The RMP Amendment will comply with the various state and federal environmental protection laws.

The RMP Amendment will be consistent with the planning and management programs of other federal agencies, state and local government and Indian tribal governments except where they conflict with the Bureau of Land Management's legal mandate.

The impact of alternative decisions upon adjacent federal and nonfederal land will be considered. All decisions will be consistent with the laws and regulations that govern the actions of the Bureau of Land Management.

Specific Planning Criteria For the Planning Issue

The appropriate level of management for each livestock grazing allotment will be determined by following a selective management approach. Following this concept, allotments will be segregated into resource management categories according to the following renewable resource, economic, and management criteria: (a) range condition, trend, and potential for improvement or deterioration in vegetation productivity, (b) resource conflicts, (c) opportunity for improvement through intensive rangeland management, (d) potential benefit from rangeland improvement projects, (e) size of allotment, and (f) cost effectiveness of implementing range improvements.

Future stocking rate adjustments, if any, would be based upon the rangeland monitoring program. In cases where existing range monitoring data demonstrates the need for adjustments, stocking rates would be altered following the procedures contained in the grazing regulations (43 CFR, part 4100).

The maintenance of the basic soil and vegetation resources will be given a high priority.

The economic health and stability of the livestock industry will be considered.

Chapter 2

ALTERNATIVES

INTRODUCTION

ALTERNATIVES CONSIDERED

Two alternatives have been prepared for analysis purposes: The Proposed Amendment and a No Action Alternative. The Proposed Amendment displays one way to balance livestock grazing use and wildlife habitat needs. It is the alternative that represents the bureau's proposed action at this time. The final RMP Amendment, which will be developed after publication of the final EIS, will be documented in a Record of Decision.

RESOURCE CONFLICT AREAS

In order to facilitate project-level planning, the resource area has been divided into four resource conflict areas, 1) South Shoshone, 2) North Shoshone, 3) Eureka, and 4) Southern Valley. A description of each resource conflict area can be found in Chapter 2 of the Draft Shoshone-Eureka RMP and EIS numbered INT DEIS 83-40. Table 2-1 shows the statistical characteristics for the allotments within each resource conflict area along with the current categorization of allotments and the recategorization. To properly understand Table 2-1, it is essential to understand the differences among the three selective management allotment categories: Maintain (M), Improve (I), and Custodial (C). On M category allotments the objective is to maintain current satisfactory conditions. Although range improvements are not proposed on these allotments in this plan, some minor improvements may be developed as the need arises. On I category allotments, the objective is to improve current unsatisfactory conditions. All range improvement projects proposed in this document are for category I allotments. On C category allotments, the objective is to manage custodially while protecting existing resource values. While range improvements are not proposed for these allotments in this plan, some minor improvements may be developed as the need arises. Range improvement projects, including projects under range improvement permit, will be allowed as long as they are consistent with Multiple Use Objectives. A map and legend following Table 2-1 shows livestock grazing allotments.

THE PROPOSED AMENDMENT

The following sections describe the objectives the Bureau would pursue to resolve the management issues under this alternative. The objectives are followed by the specific management actions that would be implemented to achieve the objectives. The management actions by resource conflict area for the proposed alternative are shown on Table 2-2.

Objectives

Manage livestock use at 239,717 animal unit months (5-year average use) in the short term and determine if such use can be maintained. In the long term, manage livestock use at 262,500 animal unit months (AUMs). Appendix A provides a table which shows AUM changes by allotment.

Table 2-1 Livestock Grazing Allotment Statistics by Resource Conflict Area

SOUTH SHOSHONE RESOURCE CONFLICT AREA

Allotment Name	Selective Management Category		Public Lands (acres)	Number of Users	Existing Level of Grazing Management	Existing Periods of Use	Class of Livestock	Active Livestock Grazing Preference (AUMs)[8/]	5 year Average Licensed Livestock Use (AUMs)
	Proposed	No Action							
Austin	I[11/]	I	238,370	6	NON-AMP[9/]	year long	CS	25,770[14/]	20,721[14/]
Buffalo Valley	I	I	120,604	1	AMP	year long	C	6,588	6,454[7/]
Carico Lake	I	I	674,129	7	NON-AMP	year long	CSH[13/]	36,958	27,171
Clear Creek	I	I	24,700	1	NON-AMP	year long	C	1,075	715
Cottonwood[16/]	I	C	116,796	2	NON-AMP	year long	CS	9,151	7,367[7/]
Gilbert Creek	I	I	248,724	4	NON-AMP	10/15-06/15	CS	16,964	13,656[7/]
Manhattan Mtn	C	C	60,980	2	NON-AMP	year long	CS	3,437	2,579
Mt. Airy	C[10/]	I	81,078	1	NON-AMP	year long	CS	3,772	3,787
O'Toole Ranches	M[12/]	M	29,870	1	AMP	04/15-05/31 11/01-01/15	C	1,903	1,750
San Juan	M	M	60,900	1	AMP	year long	C	3,386	4,920
Tierney Creek	I	I	6,260	1	AMP	04/15-05/31 10/15-11/25	C	478	828
Washington Creek	M	M	11,870	1	NON-AMP	04/01-02/28	C	360	288
Total	3M,7I,2C	3M,7I,2C	1,573,981					109,842	90,236

NORTH SHOSHONE RESOURCE CONFLICT AREA

Allotment Name	Selective Management Category		Public Lands (acres)	Number of Users	Existing Level of Grazing Management	Existing Periods of Use	Class of Livestock	Active Livestock Grazing Preference (AUMs)	5 year Average Licensed Livestock Use (AUMs)
	Proposed	No Action							
Argenta	I	C	122,370	9	NON-AMP	year long	CSH	14,248	12,107
Copper Canyon	I	C	57,396	5	NON-AMP	year long	CSH	5,481	4,248
Total	2I	2C	179,766					19,729	16,355

Table 2-1 Livestock Grazing Allotment Statistics by Resource Conflict Area

EUREKA RESOURCE CONFLICT AREA

Allotment Name	Selective Management Category		Public Lands (acres)	Number of Users	Existing Level of Grazing Management	Existing Periods of Use	Class of Livestock	Active Livestock Grazing Preference (AUMs)	5 year Average Licensed Livestock Use (AUMs)
	Proposed	No Action							
Arambel	C	C	45,526	2	NON-AMP	05/01-10/31	CS	2,554	2,445
Black Point	I	C	53,352	2	NON-AMP	05/01-10/31	CS	4,813	4,633
Cortal[2/]	2/	2/	1,130	1	Admin by Ely	year long	C	128	103 [7/]
Diamond Springs	I	I	69,679	1	AMP	year long	C	3,680	3,179
Dry Creek	I	I	149,225	1	NON-AMP	year long	CH	5,701	4,220
Duckwater Indians[1/]	2/	2/	4,013	1	Admin by Ely Interim	Summer	C	220	177 [7/]
Fish Creek Ranch	I	I	287,984	1	Grazing Mgmt System	year long	C	18,914 [3/]	9,320
Flynn & Parmann Individual	I	C	25,830	1	NON-AMP	03/01-11/30	C	1,554	1,226
Grass Valley	I	I	282,854	5	NON-AMP	year long	C	24,199	21,464
Hicks Station	M	C	24,240	1	NON-AMP	05/01-10/31	C	180 [4/]	179 [7/]
J.D.	M	M	97,740	1	NON-AMP	year long	CH	13,197	13,193
Lucky C	C	C	108,666	1	NON-AMP	04/20-11/15	C	5,080 [6/]	1,464
North Diamond	C	C	81,952	3	NON-AMP	04/01-12/20	CH	4,370	4,151
Roberts Mtn.	I	I	151,060	1	AMP	year long	CS	12,990	10,960
Romano	I	I	67,450	1	NON-AMP	year long	C	3,371	2,714 [7/]
Ruby Hill	M	M	14,659	2	NON-AMP	03/16-09/30	CS	1,424	1,426
Santa Fe Ferguson	I	C	84,375	2	NON-AMP	03/01-12/01	CS	5,202	4,188 [7/]
Seven Mile	I	C	88,428	1	NON-AMP	year long	CS	8,852	5,043
Shannon Station/ Spanish Gulch	I	C	38,873	1	NON-AMP	04/01-02/28	CS	3,167	2,848
Simpson Park	I	C	97,945	5	NON-AMP	year long	CHS	6,042	4,783
Snowball	C	C	27,267	1	NON-AMP	year long	C	991	991
Sweeny Wash	I	C	7,220	1	NON-AMP	Fall/Spring	C	478	477
Three Bars[7/]	I	I	76,740	1	AMP	03/10-12/31	CS	7,503	6,330
Three Mile	I	C	26,635	1	NON-AMP	year long	C	1,301	1,001
Underwood	I	C	24,493	1	NON-AMP	year long	CS	1,462	1,177
Willow Race Track	M	M	590	1	NON-AMP	Spring-Fall	C	250	250
Total	4M,16I,4C	3M,7I,14C	1,937,926					137,623	107,942

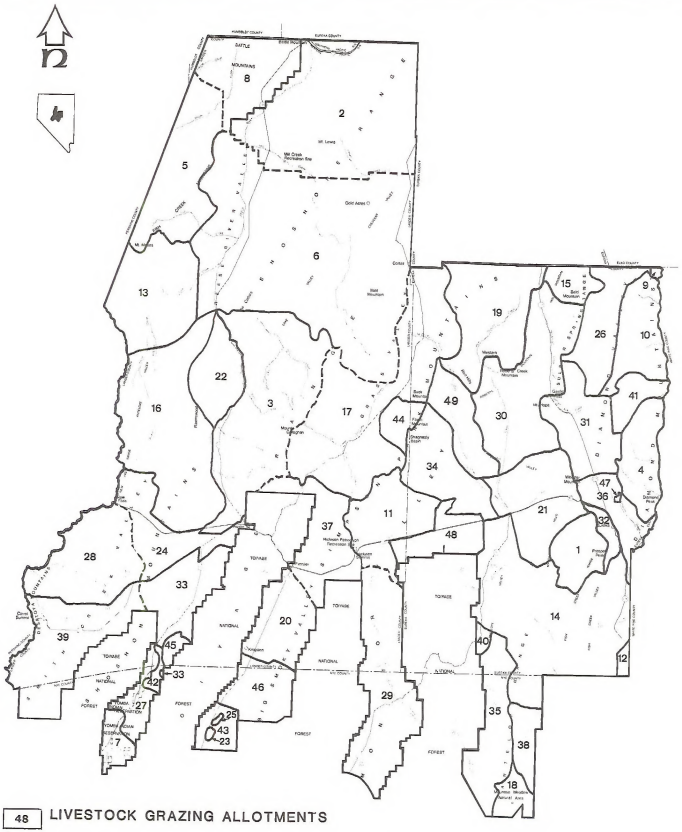
Table 2-1 Livestock Grazing Allotment Statistics by Resource Conflict Area

SOUTHERN VALLEY RESOURCE CONFLICT AREA

Allotment Name	Selective Management Category		Public Lands (acres)	Number of Users	Existing Level of Grazing Management	Existing Periods of Use	Class of Livestock	Active Livestock Grazing Preference (AUMs)	5 year Average Licensed Livestock Use (AUMs)
	Proposed	No Action							
Kingston	C	C	77,530	3	NON-AMP	Fall-Spring	C	2,728 5/	2,361
Millet Ranch Individual	C	C	1,100	1	NON-AMP	Summer	C	72	72
Nielson Individual	C	C	640	1	NON-AMP	08/01-02/01	C	116	93 7/
Porter Canyon	I	C	125,150	1	NON-AMP	year long	C	7,241	5,333
Potts	I	C	167,600	1	NON-AMP	Fall-Spring	C	9,262	7,487
S. Smith Cr.	I	C	151,000	3	NON-AMP	year long	CH	5,131	4,291 7/
Trail Canyon	C	C	24,563	2	NON-AMP	Fall-Spring	C	581	468 7/
Wildcat Canyon	C	C	63,150	2	NON-AMP	Fall-Spring	C	2,677	2,155 7/
Willow Ranch	M	M	63,510	1	AMP	04/16-12/30	C	5,370	2,924
Total	1M,31,5C	1M,8C	674,143					33,378	25,184
Grand Total	8M,281,11C	7M,141,26C	4,365,816					300,572	239,717

1/ Allotment acres and preference figures listed are for that portion of the allotment in the Shoshone-Eureka Resource Area. Allotment administered by Ely District.
2/ Categorized by Ely District
3/ Includes approximately 8,900 AUMs voluntary non-use
4/ Temporary nonrenewable AUMs
5/ Includes 832 AUMs class II grazing preference
6/ Includes approximately 3,600 AUMs voluntary non-use
7/ One of 13 allotments that did not have data available for all 5 years. Use was set at the average adjustment from preference for the resource area
8/ Animal unit month
9/ Allotment management plan
10/ Custodial
11/ Improve
12/ Maintain
13/ Cattle, sheep, and horse
14/ Only includes portion of allotment within the Shoshone-Eureka Resource Area
15/ Active preference figures are the result of adjudication following the 1956-1965 Ocular Reconnaissance Range Survey
16/ The Fish Creek Allotment in the South Shoshone Resource Conflict Area has been renamed the Cottonwood Allotment to eliminate confusion with the Fish Creek Ranch Allotment in the Eureka Resource Conflict Area.
17/ The Three Bars Ranch unit of the Roberts Mountain Allotment has been named a separate allotment to improve administration of the livestock grazing.

Source: Shoshone-Eureka Resource Area files



U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
SHOSHONE – EUREKA
RESOURCE MANAGEMENT PLAN AMENDMENT

2 - 5 LIVESTOCK GRAZING ALLOTMENTS

1987

MAP LEGEND

LIVESTOCK GRAZING ALLOTMENTS

MAP SYMBOL	LIVESTOCK ALLOTMENTS
1	Arambel
2	Argenta
3	Austin
4	Black Point
5	Buffalo Valley
6	Carico Lake
7	Clear Creek
8	Copper Canyon
9	Corta
10	Diamond Springs
11	Dry Creek
12	Duckwater Indians
13	Cottonwood
14	Fish Creek Ranch
15	Flynn
16	Gilbert Creek
17	Grass Valley
18	Hicks Station
19	J.D.
20	Kingston
21	Lucky C.
22	Manhattan Mountain
23	Millet Ranch
24	Mt. Airy
25	Nielson
26	North Diamond
27	O'Toole Ranches
28	Porter Canyon
29	Potts
30	Roberts Mountain
31	Romano
32	Ruby Hill
33	San Juan
34	Santa Fe Ferguson
35	Seven Mile
36	Shannon Station/ Spanish Gulch
37	Simpson Park
38	Snowball
39	South Smith Creek
40	Sweeny Wash
41	Three Mile
42	Tierney Creek
43	Trail Canyon
44	Underwood
45	Washington Creek
46	Wildcat Canyon
47	Willow Racetrack
48	Willow Ranch
49	Three Bars

To establish a grazing management program designed to provide key forage plants with adequate rest from grazing during critical growth periods. A description of the grazing treatments that could be implemented can be found in Appendix A of this document and Appendix A of the Draft Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40.

To achieve, through management of the livestock and wild horses, utilization levels consistent with those recommended by the Nevada Rangeland Monitoring Handbook to allow more plants to complete growth cycles and to increase storage of reserves for future growth.

In the long term, improve ecological condition on 616,394 acres and trend on 1,081,652 acres.

In the long term, improve and maintain 126,967 acres of big game habitat in good condition and 6,104 acres in excellent condition.

In the long term, stop downward trends on 65,702 acres of big game habitat and manage for upward trends on 129,941 acres.

In the short term, improve and maintain in good or better condition 64 miles of aquatic habitat and 768 acres of riparian habitat associated with the streams and an additional 1,067 acres of other meadows, springs, and aspen groves.

In the long term, improve and maintain in good or better condition a total of 84.8 miles of aquatic habitat and 1,018 acres of riparian habitat associated with the streams and an additional 1,414 acres of other meadows, springs, and aspen groves.

Appendix C provides a list of streams to be improved along with a map showing stream locations.

Short-Term Management Actions

1) The initial licensed use by livestock is anticipated to continue at the 5-year (1977-1981) average licensed use levels (239,717 animal unit months), which is 20 percent below active preference. However, livestock use may be licensed up to active preference (300,572 AUMs).

2) Continue existing rangeland monitoring studies and establish new studies as necessary to determine what adjustments in livestock use and wild horse numbers are needed to meet the objectives of the alternative.

Actions could include, but will not be limited to, change in seasons-of-use, implementation of deferment and rest rotation grazing systems, change in livestock numbers, correction of livestock distribution problems, alteration of the number of wild horses, and development of range improvements. Specific measures to improve wildlife habitat could include, but will not be limited to, restricting livestock use along streams to late summer or fall, limiting grazing use on riparian areas to moderate levels, fencing meadows and stream corridors, limiting grazing use on bitterbrush to moderate levels by winter in crucial mule deer winter range, constructing wildlife guzzlers for water, and planting desirable shrub and forb seeds in vegetation manipulation projects.

3) Implement allotment management plans on ten allotments in the "improve" category.

Draft Shoshone-Eureka Resource Management Plan Amendment

Table 2-2 KEY MANAGEMENT ACTIONS OF THE PROPOSED AMENDMENT BY RESOURCE CONFLICT AREA

ISSUE/Action	South Shoshone RCA[1]	North Shoshone RCA	Eureka RCA	Southern Valley RCA	Shoshone-Eureka Resource Area
LIVESOCK:					
Initial level of use (5-Year average licensed use [2])	90,236	16,355	107,942	25,184	239,717
Licensed use as a result of livestock actions in the					
Short Term	90,236	16,355	107,942	25,184	239,717
Short and Long Term	99,081	17,827	118,198	27,394	262,500
Number of allotment management plans					
Short Term	2	0	8	0	10
Long Term	5	2	8	3	18
Total	7	2	16	3	28
Number of water developments[3]					
Short Term	14	0	23	0	37
Long Term	36	22	43	12	113
Total	50	22	66	12	150
Miles of fence[3]					
Short Term	105	0	117	0	222
Long Term	101	130	208	86	525
Total	206	130	325	86	747
Acres of vegetation manipulation[3]					
Short Term	2,150	0	5,350	0	7,500
Long Term	4,250	0	3,925	2,000	10,175
Total	6,400	0	9,275	2,000	17,675
Cost of livstock improvement projects[3] ($)					
Short Term	407,900	0	597,800	0	1,005,700
Long Term	720,250	527,800	1,034,375	382,400	2,664,825
Total	1,128,150	527,800	1,632,175	382,400	3,670,525

1/ Resource Conflict Areas
2/ Animal Unit Months
3/ The number of projects displayed is limited to those the resource area anticipates could be funded with range betterment funds only, and therefore does not include any funding through other public or private contributions. The resource area estimate of range betterment funding available annually is approximately $200,000.

The projects needed to support these plans are described below and summarized in Table 2-2.

Develop 16 reservoirs to provide water in areas where there are no other sources of available water. The additional water would be made available to livestock, wildlife, and wild horses to encourage more even utilization of vegetation.

Develop 21 springs to promote better distribution of livestock for more even utilization of vegetation. This action would include the installation of 20 miles of pipeline and 36 water troughs.

Construct 222 miles of fence to foster better distribution of livestock for more even utilization of vegetation. This action would include installation of 15 cattle guards.

Manipulate 7,500 acres of vegetation by plowing, burning, spraying and seeding, or reseeding, to increase available forage for livestock, wild horses, and big game and improve water infiltration and holding capacity. The areas would be fenced to allow establishment of the seeded species.

Appendix A lists anticipated range improvement projects by allotment for the short and long term.

Long-Term Management Actions

1) As a result of long term management actions, available forage is projected to increase 22,783 animal unit months above the 5-year average licensed use, which is 9 percent above the 5-year average use and 13 percent below active preference.

In the long term, the monitoring program would provide data on which to base adjustments. All adjustments would be designed to achieve the objectives of the alternative.

It is expected that a total of 18 additional livestock grazing allotment management plans would be implemented by the end of the long term. Table 2-2 summarizes the range improvement projects in support of allotment management plans for both the short and long term with Appendix A providing a detailed list of projects by allotment.

THE NO ACTION ALTERNATIVE

The management actions for the No Action Alternative are shown on Table 2-3.

Objectives

To initially manage livestock use at existing levels and determine if such use can be maintained.

To establish a grazing management program designed to provide key forage plants with adequate rest from grazing during critical growth periods.

To achieve, through management of the livestock and wild horses, utilization levels consistent with those recommended by the Nevada Range Studies Task Group to allow more plants to complete growth cycles and to increase storage of reserves for future growth.

To increase vegetation production for all grazing animals while protecting sensitive resource values.

To improve priority riparian and stream habitat to good or better condition and prevent decline of remaining areas.

Table 2-3 KEY MANAGEMENT ACTIONS OF THE NO ACTION ALTERNATIVE BY RESOURCE CONFLICT AREA

ISSUE/Action	South Shoshone RCA[1]	North Shoshone RCA	Eureka RCA	Southern Valley RCA	Shoshone-Eureka Resource Area
LIVESOCK:					
Initial level of use (5-Year average licensed use [2]	90,236	16,355	107,942	25,184	239,717
Licensed use as a result of livestock actions in the					
Short Term	90,236	16,355	107,942	25,184	239,717
Short and Long Term	100,365	16,355	117,325	25,184	259,229
Number of allotment management plans					
Short Term	4	0	5	0	9 [3]
Long Term	3	0	2	0	5
Total	7	0	7	0	14
Number of water developments					
Short Term	16	0	10	0	26
Long Term	28	0	14	0	42
Total	44	0	24	0	68
Miles of fence					
Short Term	43	0	70	0	113
Long Term	139	0	64	0	203
Total	182	0	134	0	316
Acres of vegetation manipulation					
Short Term	7,500	0	10,500	0	18,000
Long Term	4,250	0	4,125	0	8,375
Total	11,750	0	14,625	0	26,375
Cost of livstock improvement projects ($)					
Short Term	504,150	0	651,750	0	1,155,900
Long Term	712,850	0	373,125	0	1,085,975
Total	1,217,000	0	1,024,875	0	2,241,875

1/ Resource Conflict Areas
2/ Animal Unit Months
3/ The 1986 Shoshone-Eureka RMP/ROD stated 8 AMPs would be implemented in the short term. This is being updated to show 9 AMPs due to the Roberts Mountain Allotment being split into the Three Bars Allotment and Roberts Mountain Allotment.

To maintain and improve wildlife habitat and to reduce habitat conflicts while providing for other appropriate resource uses.

Appendix A provides a table which shows AUM changes by allotment.

Appendix C provides a list of streams to be improved along with a map showing stream locations.

Short-Term Management Actions

Authorize livestock use up to active preference, upon request, in the short-term. Develop and implement allotment management plans on eight of the thirteen Category I allotments in the short-term.

Construct the following projects needed in support of the above plans:

a. Drill four wells to provide water in areas where there are no other sources of available water. The additional water would be made available to livestock, wildlife, and wild horses to encourage more even utilization of vegetation.

b. Develop 22 springs to promote better distribution of livestock for more even utilization of vegetation. This action would include the installation of 36 miles of pipeline and 56 water troughs.

c. Construct 113 miles of fence to foster better distribution of livestock for more even utilization of vegetation. This action would include installation of 17 cattle guards.

d. Manipulate 18,000 acres of vegetation by plowing, burning, spraying and seeding, or reseeding, to increase available forage for livestock and big game and to improve water infiltration and holding capacity of the soil. The areas would be fenced to allow establishment of the seeded species.

Continue existing rangeland monitoring studies and establish new studies as necessary to determine what adjustments in livestock use are needed to meet the objectives of the plan.

Continue to review resource information in FY 87 and make adjustments in allotment categorization as necessary.

Develop five additional management plans in the long-term.

Improve and maintain in good or better condition aquatic and riparian habitat on approximately 64 miles of stream in the short-term.

Improve approximately 250 acres of wetland habitat to benefit waterfowl and shore birds in northern Diamond Valley.

Improve and maintain in good or better condition approximately 500 acres of meadows, springs, and aspen groves.

Table 2-3 summarizes the range improvement projects in support of allotment management plans for both the short and long term with Appendix A providing a detailed list of projects by allotment.

IMPLEMENTATION OF THE RESOURCE MANAGEMENT PLAN

A discussion on implementation of the RMP including sections on Selective Management, the Rangeland Monitoring Program, and Standard Operating Procedures can be found in the Final Shoshone-Eureka Resource Area ROD issued March 1983. One

additional Standard Operating Procedures is included.

Appropriate actions will be taken on all wildfire occurrences within the planning area. A fire activity plan will be developed that identifies what the appropriate actions are under differing weather and fuel conditions.

CHAPTER 3

AFFECTED ENVIRONMENT

INTRODUCTION

A discussion of the affected environment can be found in the Draft and Final Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40 and INT FEIS 84-02, respectively with the following changes:

WILDLIFE

Riparian habitat conditions displayed in the following Table 3-1 have been changed from the same table shown in the Draft Shoshone-Eureka RMP/EIS (page 3-5), as a result of new invormation.

Table 3-2 provides information on existing condition and trend for Big Game habitat. This is a new table which provides baseline data for use in comparing changes in habitat as a result of management actions under both alternatives. A map of wildlife habitat management areas follows Table 3-2.

LIVESTOCK GRAZING

The Draft Shoshone-Eureka RMP/EIS (page 3-7) stated there were 48 allotments within the Shoshone-Eureka Resource Area. There are now 49 allotments. The additional allotment is the result of designating the Three Bars RanchUnit of the Roberts Mountain Allotment as a separate allotment.

The Fish Creek Allotment in the South Shoshone Resource Conflict Area has been renamed the Cottonwood Allotment to eliminate confusion with the Fish Creek Ranch Allotment in the Eureka Resource Conflict Area.

Season-of-Use

The Draft Shoshone-Eureka RMP/EIS (page 3-12) describes winterfat as having an extremely high tolerance to winter grazing and that as much as 75 percent (heavy use) of the foliage may be used during the winter dormant period with little effect on plant vigor. A recent reference summary on managing intermountain salt-desert shrub ranges (Blaisdell and Holmgren 1984) distills some of the more useful research information on winterfat and other salt-desert shrubs. This reference summary concludes that desirable species, such as winterfat, are apparently damaged by late winter grazing, heavy use, or a combination of the two. During winter dormancy, moderate use (average 50 percent) of winterfat plants in good condition has little effect on vigor. Therefore, in addition to discontinuing spring and summer grazing, winter use of winterfat should not exceed moderate use in order to improve and maintain winterfat range.

ECONOMIC CHARACTERISTICS

The Shoshone-Eureka Resource Area includes most of Lander and Eureka counties and small portions of northern Nye County. However, the affected environment, for purposes of economic analysis, is confined to Lander and Eureka Counties. Any potential for population, employment, or income effects beyond this area is negligible.

Table 3-1 Aquatic and Riparian Habitat Condition by Resource Conflict Area

Resource Conflict Area	Excellent	Good	Fair	Poor	Total
			Aquatic (miles)		
North Shoshone	0	5.0	15.0	4.0	24.0
South Shoshone	0	1.5	19.5	27.6	48.6
Eureka	0	16.4	39.6	8.0	64.0
Southern Valley	0	0.	15.3	7.1	22.4
	0	22.9	89.4	46.7	159.0
			Riparian (acres[1/])		
North Shoshone	0	144	430	115	689
South Shoshone	20	23	559	792	1,394
Eureka	290	180	1,136	229	1,835
Southern Valley	0	0	439	203	642
	310	347	2,564	1,339	4,560

1/ Acreage figures are estimated since the wildlife habitat inventory was not done by resource conflict area.

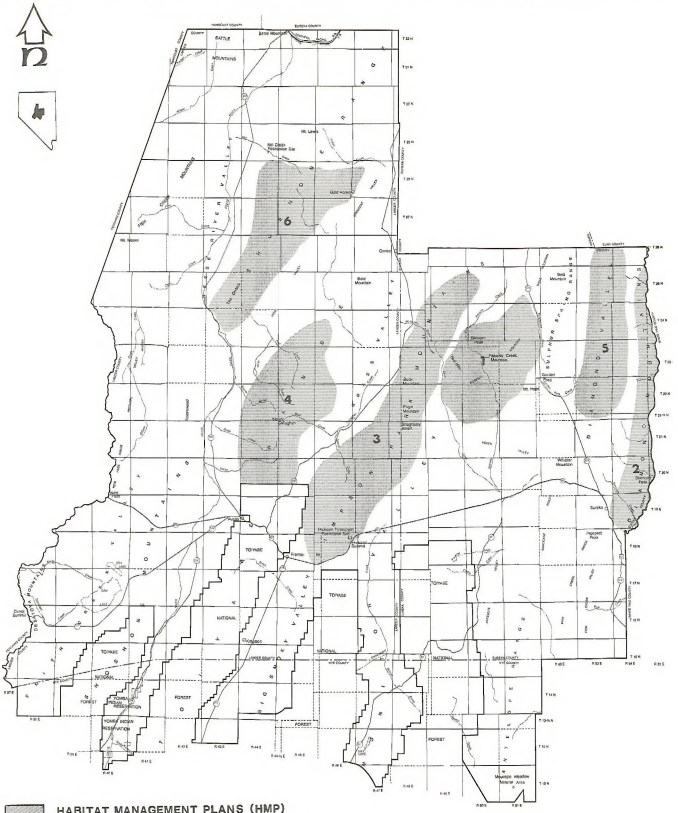
Source: USDI, BLM, 1982

Table 3-2 Terrestrial Big Game Habitat Condition and Trend by Allotment Within Each Habitat Management Area.

Habitat Mgt Area 2/ Allotment	Public Lands Acres	Habitat Condition 1/ By Condition Class: Poor acres	%	Fair Acres	%	Good Acres	%	Excellent Acres	%	Habitat Trend 1/: Down Acres	%	Static Acres	%	Up Acres	%
Shoshone															
Austin	14,302			12,872	90	1,430	10			4,291	30	10,011	70		
Carico Lake	154,658	15,466	10	108,260	70	30,932	20			30,932	20	123,726	80		
Callaghan															
Austin	59,400			53,460	90	5,940	10			17,820	30	41,580	70		
Carico Lake	11,483	1,148	10	8,039	70	2,296	20			2,296	20	9,187	80		
Grass Valley	104,619			68,002	65	31,386	30	5,231	5			78,465	75	26,154	25
Simpson Park	8,816	441	5	6,171	70	2,204	25			441	5	8,375	95		
Simpson Park															
Simpson Park	52,889	2,644	5	37,023	70	13,222	25			2,644	5	50,245	95		
Grass Valley	98,564			64,067	65	29,569	30	4,928	5			73,923	75	24,641	25
Dry Creek	26,860			16,116	60	10,744	40					26,860	100		
Underwood	21,064	1,053	5	8,426	40	11,585	55					21,064	100		
Santa Fe	26,156	1,308	5	19,617	75	5,231	20			1,308	5	24,848	95		
JD	26,390			13,195	50	10,556	40	2,639	10			26,390	100		
Three Bars	11,391	570	5	6,833	60	2,848	25	1,140	10	570	5	9,681	85	1,140	10
Roberts Mtn.															
JD	35,187			17,594	50	14,074	40	3,519	10			35,187	100		
Roberts Mtn.	65,118	3,256	5	39,070	60	16,280	25	6,512	10	3,256	5	55,350	85	6,512	10
Three Bars	33,546	1,677	5	20,129	60	8,386	25	3,354	10	1,678	5	28,514	85	3,354	10
Diamond Hills															
Diamond Sprs.	34,840	1,742	5	12,194	35	17,420	50	3,484	10			34,840	100		
Three Mile Shannan Station	9,322	466	5	7,924	85	932	10			466	5	8,856	95		
Spanish Gulch	22,157	1,108	5	14,402	65	6,647	30					22,157	100		
Black Point	49,978	2,499	5	32,485	65	12,495	25	2,499	5			49,978	100		
Totals	866,740	33,378	4	565,879	65	234,177	27	33,306	4	65,702	8	739,237	85	61,801	7

1/ Based on the professional judgment of the Shoshone-Eureka Resource Area range staff and parallels ecological condition and trend.

2/ There are 6 Habitat Management Areas shown on the following map. Only 5 are located above for Big Game Management. The sixth Habitat Management Area is the Diamond Valley Habitat Management Area which would be for waterfowl and is included under riparian habitat conditions.



HABITAT MANAGEMENT PLANS (HMP)

SHORT TERM
1 ROBERTS MOUNTAIN HMP
2 DIAMOND HILLS HMP*
3 SIMPSON PARK HMP*
4 CALLAGHAN HMP*

LONG TERM
5 DIAMOND VALLEY HMP*
6 SHOSHONE MOUNTAINS HMP*

0 5 10miles

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
SHOSHONE – EUREKA
RESOURCE MANAGEMENT PLAN AMENDMENT

WILDLIFE MANAGEMENT

1987

*Precise bounderies have not yet been determined.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter discusses the significant environmental impacts anticipated from implementation of specific management actions under the alternatives. Appendix B defines the thresholds used to identify significant impacts resulting from management actions. Thresholds have been established for relevant components of the affected environment. Impacts can be either beneficial or adverse, depending upon the effect on a particular component of the existing environment. Cumulative impacts are summarized for each environmental component in the comparative review section of the Summary. Professional judgment has been used to determine the nature and significance of impacts where data are unavailable.

The impacts to land ownership, woodlands, wild horses and burros, cultural, resources, visual resources, wilderness, recreation, material exploration and development and energy and utilities were analyzed and determined to be insignificant and will not be discussed further.

ANALYSIS ASSUMPTIONS

In order to analyze the impact from the management actions of each alternative it was necessary to make some assumptions. These are listed below to aid the reader in reviewing the impacts.

1) Bureau of Land Management would have the funding and work force to implement and supervise the selected alternative.

2) Implementation of the amended resource management plan, if selected, would begin in 1988 with short-term actions being completed within 5 years and long-term actions over an additional 15 year period.

3) Short-term impacts occur within 5 years and long-term impacts occur up to 20 years. All impacts would be long-term unless otherwise stated.

4) Impacts are direct unless otherwise noted as being indirect or cumulative.

5) Impacts would be monitored and management adjusted as necessary, based on new data from evaluation and monitoring procedures and other available data.

6) Baseline data for vegetation condition and trend, habitat condition, and other parameters is the best available. While this data is not adequate by itself for making forage allocation decisions, it is adequate for planning and analysis purposes. Data was extrapolated when necessary to cover areas for which no data was available. Specific analysis assumptions for livestock forage, ecological condition and trend, and big game habitat condition and trend can be found in Appendix A, and the analysis assumptions for aquatic and riparian habitat are located in Appendix C.

7) The Standard Operating Procedures set forth in Chapter 2 of the Draft Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40 and one additional Standard Operating Procedures developed in Chapter 2 of this

document will be used in implementing the resource management plan amendment. Impacts which would be mitigated through these procedures are not discussed.

8) Environmental analyses (including categorical exclusions) would be conducted prior to implementing any activity level plans.

PROPOSED AMENDMENT IMPACTS

The environmental consequences of this alternative are summarized in Table 4-1 by resource conflict area.

WILDLIFE HABITAT

1. Terrestrial wildlife habitat would generally improve. In the long term, approximately 126,967 acres of big game habitat would improve to good condition and 6,104 acres to excellent condition. Approximately 65,702 acres in downward trend would stabilize or improve, with 129,941 acres managed for upward trends.

Long term improvement would result in a 15 percent increase in good and excellent condition big game habitat compared to existing conditions, which is 3 percent more than the No Action Alternative. All downward trend acres would be at least stabilized with a 15 percent increase in upward trend compared to existing conditions which is 4 percent more than the No Action Alternative.

Implementing allotment management plans and grazing systems would generally benefit wildlife habitat by controlling livestock distribution and utilization of forage on ten allotments in the short term and eighteen more in the long term. A potential adverse impact to mule deer could occur when livestock grazing is continuously deferred during normal plant growth. Continued deferment in the spring gives perennial grasses a competitive edge over shrubs. Perennial grasses in good condition have been shown to reduce bitterbrush vigor and production (Valentine 1971); the same could be true for other browse species, and would be a decrease in deer habitat quality. However, grazing treatments in these crucial big game habitat areas would be tailored to periodically allow livestock grazing in the spring so that highly desireable browse plants can increase their vigor and remain healthy.

Range improvement projects would be both beneficial and adverse to wildlife. Fences would improve livestock distribution and forage utilization, but would also impair deer and pronghorn antelope movements. Water developments would provide water for wildlife in areas presently lacking it, but would also increase livestock use in these areas causing livestock to concentrate around waters, discouraging their use by big game. Seedings would defer livestock use on native spring range allowing wildlife first use of new, succulent growth. Seedings would also provide some additional forage for big game. Monotype grass seedings, however, would reduce habitat diversity in localized areas and adversely impact small animals (Reynolds and Trost, 1980). Overall, the cumulative impacts of range improvement projects would be beneficial to wildlife.

It is expected that wildlife habitat would improve in those areas receiving allotment management plans, and grazing systems in the long term.

Wildlife habitat in those areas not receiving allotment management plans

Table 4-1 Impacts of the Proposed Amendment by Resource Conflict Area

ENVIRONMENTAL COMPONENT	SOUTH SHOSHONE RCA[1]	NORTH SHOSHONE RCA	EUREKA RCA	SOUTHERN VALLEY RCA	SHOSHONE EUREKA RESOURCE AREA	IMPACTS COMPARED TO THE NO ACTION ALTERNATIVE
WILDLIFE						
Riparian habitat condition (acres)						
Projected short term						
Poor	651	330	79	423	1,483 (+3)[2]	-73[3] (NS)[4]
Fair	72	215	79	219	585 (-43)	-5 (NS)
Good-Improve[5]	631	0	1,204	0	1,835 (+40)	+12 (SB)
Good-Maintain[6] [7]	43	144	470	0	657 (0)	0
Projected long term						
Poor	665	184	126	358	1,333 (0)	-16 (SB)
Fair	28	32	32	46	138 (-53)	-4 (NS)
Good-Improve	660	330	1,204	238	2,432 (+53)	+20 (SB)
Good-Maintain	43	144	470	0	657 (0)	0
Aquatic habitat condition (miles of stream)						
Projected short term						
Poor	22.7	11.5	2.75	14.75	51.7 (+3)	0
Fair	2.5	7.5	2.75	7.65	20.4 (-43)	0
Good-Improve	22.0	0	42.0	0	64.0 [8]/(+40)	0
Good-Maintain	1.5	5.0	16.4	0	22.9 (0)	0
Projected long term						
Poor	23.2	6.4	4.4	12.5	46.5 (0)	-11 (SB)
Fair	1.0	1.1	1.1	1.6	4.8 (-53)	-2 (NS)
Good-Improve	23.0	11.5	42.0	8.3	84.8 (+53)	+13 (SB)
Good-Maintain	1.5	5.0	16.4	0	22.9 (0)	0
Terrestrial Big Game Habitat Condition and Trend						
Projected long term condition (acres)(% change)						
Poor	Wildlife Habitat Management Area boundaries do not follow Resource Conflict Area boundaries, therefore the impacts are only displayed on the Resource Area level.				26,702 (-1)	0
Fair					439,484 (-14)	-3 (NS)
Good					361,144 (+14)	+3 (NS)
Excellent					39,410 (+1)	0
Projected long term trend (acres)(% change)						
Down					0 (-8)	0
Static					674,998 (-7)	-4 (NS)
Up					191,742 (+15)	+4 (NS)
LIVESTOCK GRAZING						
Availability of forage (animal unit months)						
current use/ 5-year average licensed use	90,236	16,355	107,942	25,184	239,717	
projected short term	90,236	16,355	107,942	25,184	239,717 (0)	0
projected long term	99,081	17,827	118,198	27,394	262,500 (+10)	+2 (NS)
VEGETATION						
Long term change in ecological condition (acres)	236,316	14,606	271,145	94,327	616,394 (+14)	+4 (NS)
Long term change in vegetation trend (acres)	576,017	32,966	300,226	109,443	1,018,652 (+23)	+4 (NS)

Source: Shoshone-Eureka planning team estimates

1/ Resource Conflict Area
2/ Percent change from existing conditions
3/ Percent change from the No Action Alternative (1986 Shoshone-Eureka Resource Management Plan/Record of Decision)
4/ NS = Not a significant impact
SB = Significant beneficial impact
SA = Significant adverse impact
5/ Improve to good conditions from poor and fair condition classes
6/ Threshold is good or better condition. Some areas included in good condition class may actually be in excellent condition.
7/ Maintain in current good conditions.
8/ The 1986 Shoshone-Eureka RMP/ROD stated 64 miles of stream would be improved in the short term, and listed the names of those streams. The above 64 miles of stream includes all the streams listed in the 1986 RMP/ROD plus two additional streams but minus the miles of stream passing through private lands.

in the short or long term would remain at current condition. Livestock use will be monitored and adjustments made to achieve sustained yield over the long term. Hence, no further change in condition would be expected.

2. Approximately 1,835 acres of protected riparian habitat would improve in the short term with a total of 2,432 acres improved in the long term. Another 657 acres would be maintained in good condition while 1,471 acres of unprotected riparian habitat would remain in less than good condition or continue to decline.

Short term improvement would result in a 40 percent increase in areas in good condition compared to existing conditions and a 12 percent increase over the No Action Alternative, a significant beneficial impact. The cumulative long term improvement would be a 53 percent increase in good condition compared to existing conditions. The cumulative long term improvement would be a significant beneficial impact. Table 4-1 shows projected riparian habitat condition by resource conflict area.

The improvement in riparian habitat condition would improve wildlife habitat diversity and increase the number of wildlife using riparian areas, particularly sage grouse and non-game birds.

3. Approximately 64 miles of protected aquatic habitat would improve in the short term with a total of about 85 miles improved in the long term. Another 22.9 miles would be maintained in good condition while 51.3 miles of unprotected aquatic habitat would remain static or decline.

Short term improvement would result in a 40 percent increase in areas in good condition compared to existing conditions. The cumulative long term improvement would be 53 percent increase in good condition compared to existing conditions. The cumulative long term improvement would be 13 percent more than the No Action Alternative. The long term increase would be a significant beneficial impact. Table 4-1 shows projected aquatic habitat condition by resource conflict area.

Any aquatic habitat improved from a declining state would result in direct benefits to fisheries and water resources.

The improvement of riparian vegetation would benefit aquatic habitat by 1) shading streams and providing cover for fish, 2) stabilizing stream banks, reducing erosion (although occasional stream bank and channel alterations are natural and would still occur), and allowing development of quality pools, and 3) maintaining the microclimate of the stream/riparian environment.

Unprotected aquatic habitat condition would remain static or continue to decline as a result of many factors including livestock grazing, mining activities, wild horse use, and road construction.

LIVESTOCK GRAZING

1. Authorized livestock grazing use is anticipated to stay at the 5-year average licensed use level of 239,717 AUMs in the short term. Long term authorized livestock grazing use is projected to increase 22,783 AUMs over the 5-year average use level for a total of 262,500 AUMs. This is approximately a 10 percent increase above the 5-year average use level and 2 percent more than the No Action Alternative.

Monitoring and adjusting livestock use to reach sustained-yield levels of use would occur in the short and long term as monitoring data becomes available.

Implementation of 28 allotment management plans and construction of projects in support of those allotment management plans would provide an increase in animal unit months in the long term. Grazing systems, an integral part of any allotment management plan, may require greater stocking rates on smaller portions of the allotment. This increased utilization in the grazed area allows the ungrazed areas to rest while providing more even utilization of the vegetation in the grazed areas. The plants in the ungrazed areas are allowed to increase vigor, storage, and reproduction which leads to increased production the following year. These positive aspects of rest can outweigh the increased utilization in the grazed years (Shiflet and Heady 1971, Hickey 1971). The rest period needed for plants to regain full vigor will depend largely on the degree of previous use and the length of time adequate soil moisture is present for plant growth during the rest period. Based on a review of grazing systems in the western states by Van Pollen and Lacey (1979) and the professional judgment of the resource area staff, it is estimated that a 10 percent increase in animal unit months (AUMs) would be realized through implementation of grazing systems and allotment management plans providing 19,396 more AUMs. For analysis purposes only, 90 percent of this forage would be allocated to livestock providing 17,456 AUMs for livestock grazing.

The fences and water developments required in the implementation of grazing systems and allotment management plans would have an initial insignificant impact upon livestock grazing through loss of vegetation at the project site.

The addition of 17,675 acres of vegetation manipulation, primarily crested wheatgrass seedings, as an integral part of grazing systems, would provide an additional 5,918 animal unit months in the short term as a direct result of the seeded grasses. For analysis purposes only, 90 percent of the forage would be allocated to livestock, providing 5,327 animal unit months for livestock grazing. This would benefit livestock grazing.

2. Loss of livestock grazing would occur during riparian improvement.

Vegetation in riparian zones would be excluded from grazing during improvement. Approximately 1,835 acres would be involved. The temporary loss from these areas would amount to 612 AUMs which would not be significant. Once the areas were improved to good condition, they would be opened to livestock use on a restricted basis. The result would be a net increase in forage available to livestock. In the long term, an additional 597 acres representing 199 AUMs would be involved.

VEGETATION

Ecological condition and vegetation trend would improve 14 percent and 23 percent respectively, over the long term compared to existing conditions. These increases would not be significant impacts.

The acres of change in ecological condition and vegetation trend for each resource conflict area is shown in Table 4-1.

The above noted changes in long-term condition and trend would be brought about by both short and long-term management actions. The effects of short-term actions are discussed below followed by a brief summary of expected long-term effects.

Licensing livestock use at the present level (the five-year average, 1977-81) in the short term and adjusting grazing use through monitoring to achieve sustained-yield utilization levels would benefit ecological condition by stablizing areas with a downward trend in all resource conflict areas.

Implementation of ten allotment management plans in the short term and construction of projects in support of the allotment management plans (Table 2-2) would improve ecological condition in these allotments by allowing most plants to complete growth cycles and increase carbohydrate reserves. This would benefit ecological condition and vegetation trend.

One of the main objectives of implementing allotment management plans is to increase available forage for grazing use while improving vegetation condition and trend. Condition would be enhanced by improving ground cover, species composition, plant vigor, and density (Stoddart and Smith 1955). The rate of change in condition would vary, depending upon site potential, present vegetation condition, present cover, natural seed sources, extent of range improvements and climatic conditions (Stoddart and Smith, 1955).

The physiological needs of management species would be met by implementing the proposed allotment management plans and rangeland projects. The past practice of year-long grazing would be eliminated as grazing systems are implemented. Rest-rotation systems would (1) promote vigor and seedling success of forage species by rest and deferment, (2) promote seed planting of forage species by the mechanical action of animal movement following deferment, and (3) reduce ill effects of repeated overuse of preferred areas that commonly occur with continous grazing...(Hanley, 1979).

Water developments and fencing (Table 2-2) would improve the distribution of livestock. Proper distribution of livestock is essential to effective use of the range (Cook, 1967). As discussed above, uniform utilization of the range and rest during critical periods of growth reduces the ill effects on forage plants due to overgrazing and continuous year-long grazing. This would benefit ecological condition and vegetation trend.

Vegetation manipulation, primarily through establishment of seedings, would provide vegetation for grazing during the critical spring growing season. Reducing utilization levels on the native vegetation during the spring growing season would allow the vegetation to improve in condition while at the same time increase the total amount of forage available for grazing. This would benefit ecological condition and vegetation trend.

Management actions designed to meet the vegetation objectives of this alternative, in the long term, would be similar to those in the short term. Additional water sources and more fences would be constructed to improve livestock distribution, and an additional 18 allotment management plans would be implemented. More seedings would be developed to provide additional sources of forage

as well as reduce grazing pressure on native spring range. As previously discussed, improved livestock distribution and protection of native range from over utilization and improper season-of-use would benefit ecological condition and trend.

ECONOMIC IMPACTS

Licensing livestock grazing use at 9.5 percent above five-year average licensed use would have a significant beneficial effect on livestock industry employment compared to the existing situation. This is approximately 1.4 percent more than the No Action Alternative which is an insignificant impact.

Long-term cumulative effects of this alternative result in an estimated increase in annual gross livestock sales of approximately $500,000, and about $214,000 in net ranch income. Livestock industry employment may be expected to increase by 16 jobs, with an additional 13 jobs in the area economy. Regional economy income may be expected to increase by a total of $450,000 as the multiplier effect of purchases and sales takes hold.

In comparison with the No Action Alternative, however, no significant impacts may be expected to result from an additional 3,271 AUM. Net ranch income will increase by about $31,000 throughout the resource area, with slightly more than two new jobs.

NO ACTION ALTERNATIVE IMPACTS

The environmental consequences of this alternative are summarized in Table 4-2 by resource conflict area.

WILDLIFE HABITAT

1. Terrestrial wildlife habitat would generally improve. In the long term, approximately 95,306 acres of big game habitat would improve to good condition and 6,104 acres to excellent condition. Approximately 65,702 acres in downward trend would stabilize or improve, with 95,058 acres managed for upward trends.

Long term improvement would result in a 12 percent increase in good and excellent condition big game habitat compared to existing conditions, which is 3 percent less than the Proposed Amendment. All downward trend areas would be at least stabilized with an 11 percent increase in upward trend compared to existing conditions which is 4 percent less than the Proposed Amendment.

The kinds of impacts would be similar to the Proposed Amendment, but improvement in the long term would be less when compared to the Proposed Amendment. Less improvement would occur under the No Action Alternative because only 14 AMPs would be implemented by the long term as compared to 28 in the Proposed Amendment.

2. Approximately 1,270 acres of protected riparian habitat would improve in the short term with a total of 1,520 acres improved in the long term. Another 657 acres would be maintained in good condition, while 2,383 acres of unprotected riparian habitat would remain in less than good condition or continue to decline.

Short term improvement would result in a 28 percent increase in areas in good condition compared to existing conditions which is 12 percent less

Table 4-2 Impacts of the No Action Alternative by Resource Conflict Area

ENVIRONMENTAL COMPONENT	SOUTH SHOSHONE RCA[1]	NORTH SHOSHONE RCA	EUREKA RCA	SOUTHERN VALLEY RCA	SHOSHONE-EUREKA RESOURCE AREA	IMPACTS COMPARED TO THE PROPOSED AMENDMENT
WILDLIFE						
Riparian habitat						
Condition (acres)						
Projected short term						
Poor	749	330	307	423	1,809 (+10)[2]	+7[3] (NS)[4]
Fair	83	215	307	219	824 (-38)	+5 (NS)
Good-Improve[5]	522	0	748	0	1,270 (+28)	-12 (SA)
Good-Maintain[6] [7]	43	144	470	0	657 (0)	0
Projected long term[8]						
Poor	749	459	291	554	2,053 (+16)	+16 (SA)
Fair	83	86	72	89	330 (-49)	+4 (NS)
Good-Improve	522	0	998	0	1,520 (+33)	-20 (SA)
Good-Maintain	43	144	470	0	657 (0)	0
Aquatic habitat						
Condition (miles of stream)						
Projected short term						
Poor	22.7	11.5	2.75	14.75	51.7 (+3)	0
Fair	2.5	7.5	2.75	7.65	20.4 (-43)	0
Good-Improve	22.0	0	42.0	0	64.0 (+40)	0
Good-Maintain	1.5	5.0	16.4	0	22.9 (0)	0
Projected long-term						
Poor	24.2	16.0	4.4	19.3	63.9 (+11)	+11 (SA)
Fair	1.0	3.0	1.1	3.1	8.2 (-51)	+2 (NS)
Good-Improve	22.0	0	42.0	0	64.0 (+40)	-13 (SA)
Good-Maintain	1.5	5.0	16.4	0	22.9 (0)	0
Terrestrial Big Game						
Habitat Condition and Trend						
Projected long term condition (acres)(% change)						
Poor	Wildlife Habitat Management Area boundaries do not follow Resource Conflict Area boundaries, therefore the impacts are only displayed on the resource area level.				28,606 (-1)	0
Fair					469,241 (-11)	+3 (NS)
Good					329,483 (+11)	-3 (NS)
Excellent					39,410 (+1)	0
Projected long term trend (acres)(% change)						
Down					0 (-8)	0
Static					709,881 (-3)	+4 (NS)
Up					156,859 (+11)	-4 (NS)
LIVESTOCK GRAZING						
Availability of forage (animal unit months)						
Current use/5-year Average licensed use	90,236	16,355	107,942	25,184	239,717	
Projected Short Term	90,236	16,355	107,942	25,184	239,717 (0)	0
Projected Long Term	100,365	16,355	117,325	25,184	259,229 (+8)	-2 (NS)
VEGETATION [2]						
Long term change in Ecological condition (acres)	238,692	0	189,948	0	428,640 (+10)	-4 (NS)
Long term change in Vegetation Trend (acres)	577,893	21,224	219,508	17,619	836,244 (+19)	-4 (NS)

Source: Shoshone-Eureka planning team estimates

1/ resource conflict area
2/ Percent change from existing conditions
3/ Percent change from the proposed amendment
4/ NS = Not a significant impact
SB = Significant beneficial impact
SA = Significant adverse impact
5/ Improve to good conditions from poor and fair condition classes
6/ Threshold is good or better condition. Some areas included in good condition class may actually be in excellent condition.
7/ Maintain in current good conditions
8/ Cumulative short and long term

than The Proposed Amendment, a significant adverse impact. The cumulative long term improvement would be 33 percent increase in good conditions compared to existing conditions. The cumulative long term improvement would be 20 percent less than the Proposed Amendment which would be a significant adverse impact. Table 4-2 shows projected riparian habitat condition by resource conflict area.

3. Approximately 64 miles of protected aquatic habitat would improve in the short and long term. Another 22.9 miles would be maintained in good condition while 71.1 miles of unprotected aquatic habitat would remain static or decline.

Short and long term improvement would result in a 40 percent increase in areas in good condition compared to existing conditions. The long term improvement would be a 12 percent less than the Proposed Amendment. The long term improvement would be a significant adverse impact compared to The Proposed Amendment. Table 4-2 shows projected aquatic habitat condition by resource conflict area.

LIVESTOCK GRAZING

1. Authorized livestock grazing use is anticipated to stay at the 5-year average licensed use level of 239,717 AUMs in the short term. Long term authorized use is projected to increase 19,512 AUMs over the 5-year average use level for a total of 259,229 AUMs. This is approximately an 8 percent increase above the 5-year average use level and 2 percent less than The Proposed Amendment.

Impacts would be the same as The Proposed Amendment, but fewer allotment management plans and fewer range improvement projects would be implemented under the No Action Alternative. Table 2-3 summarizes the kinds and number of projects for both the short and long term. Appendix A provides a detailed list of anticipated projects by allotment.

2. Loss of livestock grazing would occur during riparian improvement.

Impacts would be the same as under the Proposed Amendment with minor differences as 1,270 acres would be excluded during riparian improvement. The temporary loss from these areas would amount to 423 AUMs which would not be significant.

In the long term, an additional 250 acres representing 83 AUMs would be improved. This temporary loss would not be a significant impact.

VEGETATION

Ecological condition and vegetation trend would improve 10 percent and 19 percent respectively, in the long term compared to existing conditions. These increases would be 4 percent less than The Proposed Amendment which would not be significant impacts.

The smaller degree of improvement in vegetation condition and trend as compared to The Proposed Amendment is directly related to the fewer number of allotment management plans (14 less) and range improvement projects scheduled under the No Action Alternative.

ECONOMIC IMPACTS

The No Action Alternative represents an 8.1 percent increase in livestock AUMs over the existing 5-year average; and has a significant beneficial impact through the creation of an estimated 13.7

additional jobs in the livestock industry. This is percent less than The Proposed Amendment which is an insignificant impact.

No other significant impacts are expected to result. Net ranch income should increase by about $184,000 with an effect upon net income in the regional economy estimated at $386,000. A total of 11 additional jobs in non-agricultural employment may be required to accommodate the increased business.

CHAPTER 5
LIST OF PREPARERS

Ken Cadwell, District Wildlife Management Biologist. B.A. Biology, Central Washington University. Ten years experience with the BLM.

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Paul E. Myers, Regional Economist. B.S. Economics, University of Nevada, Reno. Six years experience with the BLM.

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The following individuals contributed to the Shoshone-Eureka Management Plan from which a lot of the information in this amendment was obtained.

Mark H. Davis now in Barstow, California

Robert A. Peak now in Medford, Oregon

C. Dwayne Sykes now in Las Cruces, New Mexico

John P. Spehar now in Rawlins, Wyoming

CHAPTER 6

CONSULTATION AND COORDINATION

PUBLIC INVOLVEMENT

A notice of intent to commence land use planning for the Shoshone-Eureka Resource Area was published in the Federal Register in March of 1981. During April of 1981 a news release announced the beginning of the issue identification phase of the resource management plan. It explained the purpose of the plan and the manner in which the public could participate in the planning process. Four open houses provided the public with an opportunity to discuss the planning process and identify issues. They were held: May 4 in Battle Mountain with an attendance of nine, May 5 in Austin with an attendance of seven, May 6 in Eureka with an attendance of thirteen, and May 7 in Reno with an attendance of four.

The Battle Mountain District Advisory Council (a 10-member group of citizens representing such interests as ranching, wildlife, mining, elected government, environmental preservation, and the public at large) was briefed about the process at its October 1980 meeting.

In April of 1981, Bureau personnel met with the Te Moak Indians in Battle Mountain, the Yomba Indians in Austin, and the Te Moak Indians in Lee to identify their concerns.

Bureau personnel met with the commissioners of Eureka, Lander, and Nye counties at their regular meetings in April of 1981. The commissioners were informed about the planning process and asked to indentify their concerns.

A newsletter explaining the scope and purpose of the Shoshone-Eureka Resource Management Plan was issued during the first half of 1981 and mailed to approximately 200 individuals, organizations and agencies. It included a list of potential issues and specified procedures for public participation. A 45-day formal comment period regarding the potential issues began April 20, 1981 and ended June 5, 1981.

A letter explaining the results of issue identification was sent to individuals and organizations on the mailing list in December of 1981. It included a discussion of planning criteria and invited the public to review the draft criteria.

From November of 1982, until January 10, 1983, the Battle Mountain District solicited input from the public concerning a set of preliminary alternatives. An informational letter describing the draft alternatives was mailed to over 250 individuals, organizations, and agencies in November. A notice of intent to develop alternatives was also published in the Federal Register in November, 1982. A news release announcing open houses and a comment period was issued the first of December, 1982. The comment period was held from December 1, 1982, to January 10, 1983. Two open houses were

held each day in Battle Mountain on December 7, 1982, in Eureka on December 8, 1982, and in Reno on December 9, 1982. Twenty-five letters or comment forms were received as a result of this public involvement effort. A number of modifications were made to the alternatives based on comments from the public.

The comments received concerning the preferred resource management plan and the alternatives will be addressed in the final resource management plan. The most useful comments will be those that clearly state opinions and give reasons for those opinions. Copies of the Shoshone-Eureka Draft Resource Management Plan are available to those interested in receiving the plan. A news release has been issued to inform the public about the availability of this document. Comments have been requested from the following agencies, interest groups, and individuals.

CONGRESSIONAL

Senator Chic Hecht
Senator Paul Laxalt
Congressman Harry Reid
Congresswoman Barbara Vucanovich

FEDERAL AGENCIES

Advisory Council on Historic Preservation
Department of Agriculture
Forest Service
Soil Conservation Service
Department of Defense
Department of the Air Force
Department of Energy
Department of the Interior
Bureau of Indian Affairs
Bureau of Mines
Bureau of Reclamation
Geological Survey
Environmental Protection Agency
Fish and Wildlife Service

STATE AGENCIES

Office of the Governor, Nevada
Nevada State Clearinghouse--25 copies for distribution to State Agencies
Nevada Department of Wildlife
Legislative Counsel Bureau

LOCAL AGENCIES

Eureka County Commissioners
Lander County Commissioners
Nye County Planner

UNIVERSITY OF NEVADA

Max C. Fleischmann College of Agriculture Cooperative Extension Service
Division of Agricultural and Resource Economics
Division of Animal Science
Division of Renewable Natural Resources
Desert Research Institute, Las Vegas and Reno
Mackay School of Mines
Nevada Bureau of Mines and Geology

NEVADA STATE LEGISLATORS

Richard E. Blakemore
Norman Glasser
John Marvel
Kenneth K. Redelsperger

OTHERS

American Horse Protection Association, Inc.
Audubon Society, Lahontan Chapter
Camp Fire Club of America
Center for Action on Endangered Species, Inc.
Desert Fishes Council
Desert Protective Council, Inc.
Environmental Action, Inc.
Foresta Institute

Grazing permit holders within the Shoshone-Eureka Resource Area
International Society for the Protection of Mustangs and Burros
National Council of Public Land Users, Colorado
National Rifle Association of America
National Trappers Association, Inc.
National Wildlife Federation
Nationwide Forest Planning Clearinghouse
Natural Resources Defense Council
Nature Conservancy
Nevada Cattlemen"s Association
Nevada Outdoor Recreation Association/National Public Lands Task Force
Nevada Wildlife Federation
North American Falconers Association
Northern Nevada Native Plant Society
Pacific Legal Foundation
Private citizens who have participated in the planning process
Private citizens who have requested a copy of the plan
Public Lands Council
Sierra Club
Society of American Foresters
Society for Range Management
Wilderness Society
Wild Horse Organized Assistance
Wildlife Management Institute
Wildlife Society, Nevada Chapter

Copies of the plan are available at the following Bureau of Land Management District and State Offices.

BUREAU OF LAND MANAGEMENT OFFICES

Office of Public Affairs
Bureau of Land Management
18th and C Streets
Washington, D.C. 20240

Nevada State Office
300 Booth Street
P.O. Box 12000
Reno, Nevada 89520

Battle Mountain District Office
North 2nd and Scott Streets
P.O. Box 194
Battle Mountain, Nevada 89820

Carson City District Office
1050 East Williams Street
Carson City, Nevada 89701

Elko District Office
2002 Idaho Street
Elko, Nevada 89801

Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

Las Vegas District Office
4765 West Vegas Drive
Las Vegas, Nevada 89102

Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

PUBLIC LIBRARIES

Churchill Public Library
553 South Main Street
Fallon, Nevada 89406

Clark County Library
1401 East Flamingo Road
Las Vegas, Nevada 89121

Elko County Library
720 Court
Elko, Nevada 89801

Esmeralda County Library
Goldfield, Nevada 89013

Eureka County Library
Eureka, Nevada 89316

Lander County Library
Battle Mountain, Nevada 89820

Mineral County Library
1st and D Streets
Hawthorne, Nevada 89415

Nevada State Library
Library Building
Carson City, Nevada 89710

Nye County Library
Tonopah, Nevada 89049

University of Nevada, Las Vegas
James R. Dickinson Library
4505 Maryland Parkway
Las Vegas, Nevada 89154

University of Nevada, Reno
Getchall Library
Reno, Nevada 89507

Washoe County Library
1301 South Center Street
Reno, Nevada 89505

White Pine County Library
City Hall
Ely, Nevada 89301

HEARINGS

The dates and times for public hearings will be announced in advance through the news media and in the Federal Register.

APPENDIX A

SUPPLEMENT TO LIVESTOCK GRAZING

The criteria used in categorizing allotments were initially published in the Draft Shoshone-Eureka RMP and EIS issued in 1983. Comments on the initial criteria criticized the use of a "Funding and Manpower Capability" criteria. The original concept of categorization did not include a criterion on funding and manpower capability. Following a reexamination of the criteria, the "Funding and Manpower Capability" criterion has been dropped. The categorization criteria along with a list showing the results of the recategorization of allotments as of November 1986, can be found on pages A-2 through A-5.

A description of the different grazing treatments that could be implemented as part of the management actions, and a list defining the different kinds of range improvement projects can be found in the Draft Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40. An additional qualifying statement has been added to Grazing Treatment 6 and is restated below:

> Treatment 6: Defer livestock grazing two months in the spring (dates vary by allotment).
>
> This treatment would be designed to help meet the needs of key species in areas not presently proposed for allotment management plan development. Increased vigor of all key species would be favored by the treatment. The exact time of spring rest would vary by allotment, (added) but commonly parallels indicators of range readiness for grazing.

Pages A-7 through A-9 show animal unit month (AUM) totals for each allotment by resource conflict area and alternative.

Pages A-10 and A-11 provide a detailed list of anticipated range improvement projects for both the Proposed Amendment and No Action Alternative respectively.

Analysis Assumptions:

Livestock Forage

1. Ten percent increase in AUMs would be realized through implementation of grazing systems and allotment management plans. This does not include additional forage produced through vegetation manipulation.

2. Brush reduction with reseeding would provide one additional AUM for every 3 acres treated under ideal conditions. Brush reduction only, such as prescribed burns and sprays would provide one additional AUM for every 10 acres treated.

3. Of the AUM increases from grazing systems and vegetation manipulation projects, ten percent of the increases would be allocated to big game.

Ecological Condition and Trend

1. Ecological condition (thus trend) on allotments scheduled for allotment management plan development would change as follows:

   In areas with static or upward trend, excellent condition areas would remain the same,
   Three percent of good condition areas would improve to excellent condition.
   Twenty-five percent of fair condition areas would improve to good condition.
   Fifteen percent of poor condition areas would improve to fair condition.
   Five percent of poor condition areas would improve to good condition.

   In areas with downward trend,
   Two percent of good condition areas would improve to excellent condition.
   Twenty percent of fair condition areas would improve to good condition.
   Fifteen percent of poor condition areas would improve to fair condition.
   Five percent of poor condition areas would improve to good condition.

   All remaining acres in downward trend would become static trend.

2. In allotments not scheduled for allotment management plan development.

   All acres in downward trend would become static trend.

Terrestrial Big Game Habitat Condition and Trend

Changes in Big Game Habitat Condition and Trend parallel changes in ecological condition and trend.

Shoshone-Eureka Resource Area
Criteria for Categorization
Of Allotments into the Selective
Management Categories as of November 1986

1. Ecological Condition

Estimated ecological range condition, developed on key area range sites, as base data for the Shoshone-Eureka Resource Area monitoring program.

Maintain category -	good to excellent
Improve category -	poor to fair
Custodial category -	present ecological condition is not a factor in placing an allotment into Category C provided the condition is stable or static.

2. Ecological Range Site Potential

The normal years' potential production (lbs/acre current year's growth) for all the range sites containing key area studies in an allotment will be averaged in proportion to the size of each key area range site.

Maintain -	Vegetation types have the capability of increased production.
Improve -	Vegetation types have the capability of increased production.
Custodial -	Vegetation types do not have the capability of increased production.

3. Range Trend

Trend data will be used as a criteria for initial allotment categorization where sufficient data is available from existing studies.

Maintain -	Static or improving
Improve -	Declining or static
Custodial -	Static or improving

4. Economic Investment Potential

Maintain - Medium to high potential may exist for positive economic return of public investments.
Improve - High potential exists for positive economic return of public investments.
Custodial - Low potential exists for positive economic return on public investments.

5. Social-Political Controversy or Interest

Maintain - The degree to which controversy or interest conflict with present management must be low.
Improve - The degree of conflict must be moderate to high.
Custodial - The degree of conflict must be low.

This criteria includes possible conflicts of major importance such as water rights, land claims, proximity to town sites, and major wilderness interest.

6. Present Management

Maintain - Present management implemented and meeting resource management objectives; no major revisions necessary.
Improve - Resource management objectives not being met; allotment in need of an AMP or grazing system; major revision of existing AMP needed.

Custodial - Present resource management appears satisfactory or is the only logical practice considering all other criteria,

7. Range Improvements

Maintain - Range improvements have been completed and are meeting resource management objectives. Additional range improvements may be required to fully implement existing systems.

Improve - Additional range improvements are required to meet management objectives.
Custodial - Range improvements have been completed and are sufficient to meet resource management objectives or range improvements are not required to meet resource management objectives.

8. Resource Conflicts

Critical wildlife habitat, wild horse and burro/livestock use areas, recreation, water rights, mining, lands actions, A.C.E.C., reintroduction of plants and animals, soil, water, and air quality.

Maintain - An interdisciplinary team will be used to determine the effect a limited number of the above mentioned criteria will have on present grazing management.

Improve - One or more major conflicts must be present.

Custodial - Same as Maintain.

9. Allotment Statistics

Acreage, land status, number of permittees, amount of trespass, and presence or absence of unfenced private land exchange-of-use agreements.

Maintain - It is necessary to have cooperation established with the majority of the private landowners and the majority of the private lands must be under exchange-of-use agreements. The allotment size does not apply. There should not be a significant history of prior trespass.

Improve - Land status exchange-of-use agreements and size are not prohibitive factors for future management practices or there is a history of prior trespass.

Custodial - Mixed land status prohibits intensive management and land exchanges are not feasible. There should not be a history of prior trespass. Allotment size impedes intensive grazing management.

Shoshone-Eureka Resource Area
Recategorization of Allotments as of November 1986

Priority	Improve Category	Maintain Category	Custodial Category
1	Three Bars	Willow Ranch	Arambel
2	Austin	San Juan	Lucky C
3	Gilbert Creek	O'Toole Ranches	Snowball
4	Grass Valley	Willow Racetrack	N. Diamond
5	Fish Creek Ranch	J.D.	Mt. Airy
6	Seven-Mile	Washington Creek	Manhattan Mtn.
7	Roberts Mtn.	Ruby Hill	Kingston
8	Diamond Springs	Hicks Station	Wildcat Canyon
9	Black Point		Trail Canyon
10	Dry Creek		Millet Ranch
11	Shannon Station/ Spanish Gulch		Neilsen Individual
			Corta
12	Buffalo Valley		Duckwater
13	Simpson Park		
14	Romano		
15	Santa Fe-Ferguson		
16	Underwood		
17	Porter Canyon		
18	S. Smith Creek		
19	Three Mile		
20	Copper Canyon		
21	Argenta		
22	Carico Lake		
23	Tierney Creek		
24	Flynn/Parman		
25	Potts		
26	Cottonwood		
27	Sweeney Wash		
28	Clear Creek		

Final Allotment AUM Totals by Resource Conflict Area and Alternative

South Shoshone Resource Conflict Area

Allotment Name	5-Year Average Licensed Livestock Use Use (AUMs)	Change in AUMs by Alternative 1/ Proposed Amendment Long Term	No Action Alternative Long Term
Austin	20,721	23,231	24,836
Buffalo Valley	6,454	7,035	7,035
Carico Lake	27,171	30,892	30,892
Clear Creek	715	780	780
Cottonwood 2/	7,367	8,030	7,367
Gilbert Creek	13,656	14,886	14,886
Manhattan Mountain	2,579	2,579	2,579
Mount Airy	3,787	3,787	4,129
O'Toole Ranches	1,750	1,750	1,750
San Juan	4,920	4,920	4,920
Tierney Creek	828	903	903
Washington Creek	288	288	288
Total	90,236	99,081	100,365

Final Allotment AUM Totals by Resource Conflict Area and Alternative

Eureka Resource Conflict Area

Allotment Name	Change in AUMs by Alternative[1/] 5-Year Average Licensed Livestock Use (AUMs)	Proposed Amendment Long Term	No Action Alternative Long Term
Arambel	2,445	2,445	2,445
Black Point	4,633	5,050	4,633
Corta	103	103	103
Diamond Springs	3,179	3,465	3,465
Dry Creek	4,220	4,600	4,600
Duckwater Indians	177	177	177
Fish Creek Ranch	9,320	11,059	11,059
Flynn and Parmann Individual	1,226	1,442	1,226
Grass Valley	21,464	23,441	23,486
Hicks Station	179	179	179
J.D.	13,193	13,193	13,193
Lucky C	1,464	1,464	1,464
North Diamond	4,151	4,151	4,151
Roberts Mountain	10,960	11,946	13,686
Romano	2,714	3,295	3,295
Ruby Hill	1,426	1,426	1,426
Santa Fe Ferguson	4,188	4,835	4,188
Seven Mile	5,043	5,497	5,043
Shannon Station/ Spanish Gulch	2,848	3,242	2,848
Simpson Park	4,783	5,326	4,783
Snowball	991	991	991
Sweeny Wash	477	490	447
Three Bars[3/]	6,330	7,456	8,009
Three Mile	1,001	1,392	1,001
Underwood	1,177	1,283	1,177
Willow Race Track	250	250	250
Totals	107,942	118,198	117,325

Final Allotment AUM Totals by Resource Conflict Area and Alternative

North Shoshone Resource Conflict Area

Allotment Name	5-Year Average Licensed Livestock Use Use (AUMs)	Change in AUMs by Alternative[1/] Proposed Amendment Long Term	No Action Alternative Long Term
Argenta	12,107	13,197	12,107
Copper Canyon	4,248	4,630	4,248
Total	16,355	17,827	16,355

Southern Valley Resource Conflict Area

Allotment Name	5-Year Average Licensed Livestock Use Use (AUMs)	Change in AUMs by Alternative Proposed Amendment Long Term	No Action Alternative Long Term
Kingston	2,361	2,361	2,361
Millet Ranch Individual	72	72	72
Nielson Individual	93	93	93
Porter Canyon	5,333	5,813	5,333
Potts	7,487	8,761	7,487
South Smith Creek	4,291	4,677	4,291
Trail Canyon	468	468	468
Wildcat Canyon	2,155	2,155	2,155
Willow Ranch	2,924	2,924	2,924
Total	25,184	27,324	25,184

1/ Changes in specific AUM levels are due to implementation of AMP and proposed vegetative manipulations.

2/ The Fish Creek Allotment in the South Shoshone Resource Conflict Area has been renamed the Cottonwood Allotment to eliminate confusion with the Fish Creek Ranch Allotment in the Eureka Resource Conflict Area.

3/ The Three Bars Ranch Unit of the Roberts Mountain Allotment has been named a separate allotment to improve administration of the livestock grazing.

SHOSHONE-EUREKA RESOURCE AREA-PROPOSED AMENDMENT
PROPOSED RANGE IMPROVEMENTS[1/]
(Short Term)

Allotment	Water Developments					Fencing		Vegetative Manipulation
	Springs (ea)	Wells (ea)	Reservoirs (ea)	Pipelines (miles)	Troughs (ea)	Miles	Cattleguards (ea)	Acres
Three Bar	1		3	2	2	10	2	1,850
Austin	6			4	9	70	4	2,150
Gilbert Creek			8			35	1	
Grass Valley	2				2	26	5	500
Fish Creek Ranch	2		5	3	9	40	2	3,000
Seven-Mile	1			6	2	4		
Roberts Mtn.	3			5	6	24	1	
Diamond Sprs.	2				2	3		
Black Point	2				2	2		
Dry Creek	2				2	8		
Totals	21 ea		16 ea	20 mi.	36 ea	222 mi.	15 ea	7,500 acres
					(Long Term)			
Shannon Station/ Spanish Gulch	6	1		4	6	40	8	525
Buffalo Valley		4	4	6	4	2		
Simpson Park	6	2		4	6	46	8	375
Romano		1	6		2	24	2	1,125
Santa Fe-Ferguson	6	1		12	8	60	6	900
Underwood	6	1		8	8	10		
Porter Canyon	4			4	4	20	4	
S. Smith Cr.	4		4	4	4	36	8	
Three Mile	3	1		4	5	16	4	1,000
Copper Canyon	4		1	4	4	40	12	
Argenta	12	1	4	20	14	90	14	
Carico Lake	12	4	4	20	20	86	8	4,250
Tierney Cr.	2			2	5			
Flynn-Parman	1		2	2	1	12	2	
Potts						30	4	2,000
Cottonwood Sweeney Wash	2		2	4	2	12	4	
Clear Creek	2			5	5	.5		
Subtotal	70	16	27	103	98	524.5	84	10,175
Totals	91	16	43	123	134	746.5	99	17,675

1/ Range improvements listed in Table 2-2 and above are projections of the number and kind of projects needed to implement allotment management plans, but do not include projects that would be built in the "M" and "C" category allotments or projects funded totally by permittees under range improvement permit.

SHOSHONE-EUREKA RESOURCE AREA-NO ACTION ALTERNATIVE
PROPOSED RANGE IMPROVEMENTS
(Short Term)[1/]

Allotment	Water Developments					Fencing		Vegetative Manipulation
	Springs (ea)	Wells (ea)	Reservoirs (ea)	Pipelines (miles)	Troughs (ea)	Miles	Cattleguards (ea)	Acres
Buffalo Valley	2	4		6	10	2		
Tierney Creek	2			2	5			
Clear Creek	2			5	5	.5		
Roberts Mtn.	3			11	13	24	1	5,800
Three Bars	1			4	4	10	2	3,700
Diamond Sprs.	2				2	3		
Austin	6			8	13	40	4	7,500
Grass Valley	2				2	25	10	1,000
Dry Creek	2				2	8		
Subtotals	22 ea	4 ea		36 mi.	56 ea	112.5	17 ea	18,000 acres
				(Long Term)				
Mt. Airy						18	4	
Fish Cr. Ranch	2		5	3	9	40	2	3,000
Carico Lake	12	4	4	20	20	86	8	4,250
Gilbert Creek			8			35	1	
Romano		1	6		2	24	2	1,125
Subtotal	14	5	23	23	31	203	17	8,375
Total	36	9	23	59	97	315.5	34	26,375

1/ The Shoshone-Eureka RMP/ROD issued in March 1986, listed a specific number of range improvement projects to be developed and grouped them under the heading of "Short Term and Long Term Management Actions". These range improvement projects were described in the draft RMP/EIS as short term projects only, and therefore, displayed above as short term projects. A detailed list of long term projects were not included in the RMP/ROD but are provided as shown above for analysis purposes.

APPENDIX B

BASIS FOR ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL IMPACTS

DETERMINATION OF SIGNIFICANT IMPACTS

Appendix B defines the thresholds used to identify significant impacts resulting from management actions. . Thresholds have been established for relevant components of the affected environment. When an environmental impact exceeds a specified threshold, that impact becomes significant. Impacts can be either beneficial or adverse, depending upon the effect on a particular component of the existing environment. The following thresholds are based upon the professional judgment of the planning team.

Affected Resource	Measurement Parameters	Critical Threshold or Level of significance[1/]
A. Vegetation	Effect on the ecological condition and vegetation trend within the resource conflict areas	Any action which would result in a 10 percent or more difference in condition between alternatives within the resource area Any action which would result in a 10 percent or more difference in Trend between alternatives within the resource area.
	Effect on condition of riparian vegetation	Any action which would result in a 10 percent or more difference in riparian condition between alternatives within the resource area.

APPENDIX B: BASIS FOR ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL IMPACTS (continued)

Affected Resource	Measurement Parameters	Critical Threshold or Level of significance[1/]
B. Wildlife Habitat	Effect on crucial wildlife habitat (i.e., riparian areas, key seasonal use areas, strutting grounds, aquatic habitat, etc.)	Same as vegetation section
C. Livestock Grazing	Effect on availability of forage for livestock within a resource conflict area or the resource area	Any action that would cause a 10 percent or greater change in livestock grazing from the No Action Alternative
D. Economics	Effect upon ranch income	A 5 percent change in net ranch income for any ranch size group
	Effect upon ranch wealth	A 10 percent change in ranch wealth
	Effect upon employment and sales within the resource area by economic sector	A 5 percent change in the employment or sales of any sector
	Effect upon total employment within the resource area	A 1 percent change in total resource area (Lander and Eureka counties) employment

APPENDIX C

AQUATIC AND RIPARIAN HABITAT

INTRODUCTION

Aquatic and streamside riparian habitat conditions were determined from data collected during stream surveys conducted in the resource area in 1979. Approximately 90 percent of the perennial streams on Bureau of Land Management-administered land in the resource area were surveyed. The surveys followed procedures in the Nevada State Office Supplement (Release NSO 6-38, dated 01/25/78) to Bureau Manual Section 6671. Non-streamside riparian habitats were evaluated during wildlife habitat inventories conducted in 1980 and 1981. These inventories concentrated on "special habitat features" which include springs, seeps, wet meadows, small upland meadows, small groves of trees and other features and were conducted according to Bureau Manual Section 6602.

The stream surveys evaluated several parameters for both in stream and stream bank conditions. Two parameters, bank cover and bank stability were used to rate streamside riparian habitat condition. The ratings for the two parameters were averaged for each stream giving an overall rating which is expressed as a percentage of the optimum, that being the theoretically perfect condition, or 100 percent. These percentage ratings were placed in a condition class as follows: 70 percent and above, excellent; 60 to 69 percent, good; 50 to 59 percent, fair; and 49 percent and below, poor.

Aquatic habitat condition was determined in a similar manner, but based on five parameters: pool-riffle ratio, pool quality, stream bottom desirable material, bank cover, and bank stability. The five ratings for each stream were averaged to get an overall rating of aquatic condition, also expressed as a percentage of optimum. These ratings were placed in condition classes as above.

Following is an example of how the process worked for each stream:

Trout Creek -	Pool riffle ratio, percent optimum	- 23
	Pool quality, percent optimum	- 0
	Stream bottom, percent desirable material	- 93
	Bank cover, percent optimum	- 65
	Bank stability, percent optimum	- 72
	Total	253

Average = 51 percent of optimum, or fair condition aquatic habitat.

Riparian habitat: Bank cover, percent optimum	- 65
Bank stability, percent optimum	- 72

Average = 69 percent of optimum or good condition riparian habitat.

Aquatic and streamside riparian habitat condition by resource conflict area is shown in Table 3-1 in Chapter 3. Streamside riparian acreage is incorporated into the totals shown for each resource conflict area.

In 1980 and 1981, 375 wetland/riparian (non-streamside) features were inventoried. Each feature was evaluated for its current habitat condition. Hazard and habitat conflicts were documented. Areas were judged to be significantly damaged, slightly damaged or undamaged. Sixty percent of the areas inventoried were significantly damaged or in less that good condition.

Since the original inventories were not done by resource conflict area, the amount and condition of riparian habitat was estimated for each resource conflict area. These amounts are incorporated into the totals shown for each resource conflict area in Table 3-1.

Analysis Assumptions

Some analysis assumptions were made in order to project riparian and aquatic habitat condition changes under the various alternatives.

1. Riparian and stream habitat not proposed for improvement would change as follows:

   In the short term, 50 percent of the existing habitat in fair condition would decline one condition class. In the long term, 80 percent of the habitat in fair condition would decline one condition class. All good condition areas would remain in good condition.

2. With implementation of an improvement program, all areas in poor or fair condition would reach good condition in the short and long term. All good condition areas would remain in good condition.

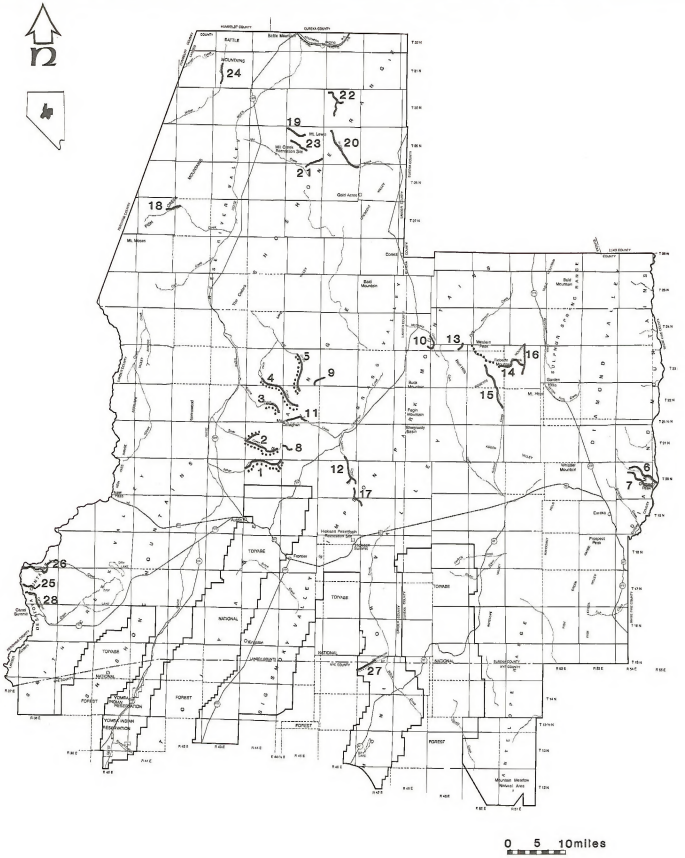
3. Changes in riparian conditions occur in direct proportion to changes in aquatic habitat conditions.

4. There are approximately 12 acres of riparian habitat associated with each mile of stream/aquatic habitat.

Page C-3 provides a detailed list of streams scheduled for improvement for the short and long term for both the Proposed Amendment and No Action Alternative, respectively. A map which shows stream locations by number accompanies the list of streams.

Shoshone-Eureka Resource Area
Aquatic (Stream) Habitat and Associated Riparian Habitat to be Improved

	Proposed Amendment			No Action Alternative	
Allotment	Map No	Stream Name	Improve (Miles)	Stream Name	Improve (Miles)
Short Term					
Austin	1	Italian Creek	4.0	Italian Creek	4.0
	2	Silver Creek	4.0	Silver Creek	4.0
	3	Boone Creek	3.5	Boone Creek	3.5
	4	Iowa Creek	5.0	Iowa Creek	5.0
	5	Hall Creek	5.5	Hall Creek	5.5
Black Point	6	Cottonwood Creek	3.2	Cottonwood Creek	3.2
	7	Hildebrand Creek	2.2	Hildebrand Creek	2.2
Grass Valley	8	Callaghan Creek	2.3	Callaghan Creek	2.3
	9	Cowboy Rest Creek	2.5	Cowboy Rest Creek	2.5
	10	McCluskey Creek	2.5	McCluskey Creek	2.5
	11	Skull Creek	5.0	Skull Creek	5.0
	12	Steiner Creek	5.5	Steiner Creek	5.5
JD	13	Tonkin Creek	0.8	Tonkin Creek	0.8
Roberts Mtn	14	Vinini Creek	5.0	Vinini Creek	5.0
	15	Roberts Creek	7.0	Roberts Creek	7.0
	16	Henderson Creek	3.0	Henderson Creek	3.0
Dry Creek	17	Dry Creek	3.0	Dry Creek	3.0
		Sub-Total	64.0		64.0
Long Term					
Buffalo Valley	18	Fish Creek	1.0		
Argenta	19	Crippen Creek	4.5		
	20	Indian Creek	2.0		
	21	Mill Creek	0.5		
	22	Rock (Crum) Creek	1.0		
	23	Trout Creek	2.5		
Copper Canyon	24	Willow Creek	1.0		
Porter Canyon	25	Milkhouse Creek	2.8		
	26	Smith Creek	3.0		
Potts	27	Stoneberger Creek	1.0		
S. Smith Creek	28	Campbell Creek	1.5		-
		Sub-Total	20.8		
		Total	84.8		64.0



RIPARIAN AND AQUATIC HABITAT*

HISTORIC LAHONTAN CUTTHROAT TROUT HABITAT*

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
SHOSHONE - EUREKA
RESOURCE MANAGEMENT PLAN AMENDMENT

RIPARIAN and AQUATIC HABITAT

1987

For additional map information, please refer to the facing page.

GLOSSARY OF TERMS

The glossary of terms can be found in the Draft Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40.

New terms are defined below:

range readiness: The term used to describe when early grazing should begin in the spring. This is generally when the soil is firm after winter snows, and plants have had an opportunity to make good growth and begin storing food supplies.

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The bibliography can be found in the Draft Shoshone-Eureka RMP/EIS numbered INT DEIS 83-40.

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INDEX

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